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ABSTRACT

These four issues of volume 3 (1993) contains brief reports on published research of the National Center for Research in Vocational Education. In issue 1 are these two articles: "The Specifics: Integrating Vocational and Academic Education" and "A New Vision: Overhauling the Comprehensive High School." Issue 2 consists of four articles: "Challenges and Changes: Thinking Twice about the Status Quo"; "Apples and Oranges? Comparing Vocational and Academic Integration to Other Education Reforms"; "Exploring Assumptions: Getting to the Root of Curriculum Distribution"; and "Workplace Innovation: Reforming Education Reform." Issue 3 is a focus issue with an emphasis on integrating vocational and academic education. The three articles are "The Good and the Bad: Assisting Teachers with the Integration of Vocational and Academic Education"; "Not Just for Principals: An Outline for the Integration of Vocational and Academic Education Speaks for Itself"; and "Beyond Square One: Drawing on the Experience of Others in Vocational and Academic Integration." Issue 4 is also a focus issue dealing with special populations. The four articles are "A Tale of Two Cities and Collaborating for Limited English Proficient Students: Two Reports on the Education of ESL [English as a Second Language] Students"; "PG Rating Not Required: Parental Guidance Is an Inherent Part of Mexican-American Life"; "'Shot Full of Holes': The Relationship of Literacy Skills to Vocational Education and Work"; and "Improving Special Needs Programs: A Preliminary Framework." (YLB)

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THE SPECIFICS:
Integrating Vocational and Academic Education

The Southern Regional Education Board (SREB)–Vocational Education Consortium is a group of forty sites in seventeen states working to strengthen the academic competencies of high school students in vocational programs. The consortium's approach to strengthening academics has involved considerable collaboration between vocational and academic teachers.

The NCRVE report *Collaborative Efforts Between Vocational and Academic Teachers: Strategies That Facilitate and Hinder the Efforts* by B. June Schmidt provides insight at the grassroots level about what will and will not work when teachers collaborate to integrate vocational and academic education. The report specifies examples of strategies that have been implemented to foster collaboration and provides teachers' and administrators' perceptions of the strategies' effectiveness. Indeed, specifics are at the heart of *Collaborative Efforts*.

To determine which of the intervention strategies have and have not been effective, Schmidt set up a series of structured interviews with teachers, administrators, and other school personnel at three SREB Consortium sites. These sites were perceived by the consortium director to be effectively developing collaborative efforts between vocational and academic teachers. Five issues were addressed in the interviews:

1. What instructional strategies have been developed and used by vocational and academic teachers to achieve integration?

2. What curricular strategies have been developed and used by vocational and academic teachers to achieve integration?

3. What collaborative efforts have been undertaken by vocational and academic teachers to achieve integration?

Table 1—Instructional Strategies

Themes of Effective Strategies	Barriers to Success
• Vocational and academic teachers developing coordinated instruction where the instruction of one reinforces that of the other	• Not reaching agreement between vocational and academic teachers on the specifics of the basic academic skills before agreeing to reinforce one another's teaching
• Vocational and academic teachers developing cooperative assignments	• Not providing adequate planning time for vocational and academic teachers to work in pairs or in small groups to develop cooperative instruction
• Vocational student organization projects providing a springboard for collaboration between vocational and academic teachers	• Not providing vocational teachers adequate time to master procedures for teaching basic academic competencies and not providing academic teachers adequate instructional materials or examples of real-life uses of the skills they teach
• Academic teachers using equipment and materials borrowed from vocational teachers to illustrate applications	

Table 2—Curricular Strategies

Themes of Effective Strategies	Barriers to Success
• Vocational and academic teachers working together in small groups to develop programs of study	• Placing students who have not performed satisfactorily in general courses in more advanced academic level courses without restructuring the instruction
• Implementing applied courses in place of general courses with vocational teachers providing academic teachers with real-world application examples	• Simply renaming courses as "applied" without significantly changing the content or instructional procedures used in them

Table 3—Collaborative Efforts and Circumstances

Effective Efforts	Barriers to Success
• Sharing students' work	• Vocational teachers' feelings of inadequacy in teaching academic skills
• Borrowing books from one another	• Vocational teachers' feelings that academic instruction is the job of academic teachers
• Sharing lists of academic skills taught and needed in classes	• Academic teachers' concern that vocational teachers do not appreciate the difficulty of teaching in academic settings
• Observing one another's classes	• Academic teachers' feelings that when vocational teachers were located at a vocational center, teachers from both areas have only limited opportunity to share with one another

4. What administrative practices and procedures foster collaboration between vocational and academic teachers?

5. Which of the strategies, efforts, practices, and procedures implemented to achieve integration do teachers and administrators find effective?

The author then synthesizes statements made during the interviews into a series of lists detailing effective and ineffective strategies for integrating vocational and academic education. Each strategy is classified into one of four categories: (1) instructional strategies, (2) curricular strategies, (3) collaborative efforts, and (4) administrative practices and procedures.

From a group of *instructional strategies*, the author outlines four themes of effective collaboration between vocational and academic teachers and three barriers to success (see Table 1). Two themes of effective collaboration emerge from the lists of *curricular strategies*, and two barriers are identified as well (see Table 2). Examples of effective *collaborative efforts* and circumstances inhibiting collaboration are listed briefly in Table 3, while some common effective and less-than-effective *administrative practices and procedures* are included in Table 4

Although information has been effectively condensed and conveniently categorized in *Collaborative Efforts*, the report also addresses the "nitty-gritty" details of integration. In fact, each of the fifty-seven effective strategies and forty-one "problem" strategies and circumstances that were generated during the on-site interviews is included.

Collaborative Efforts is a concise source of what does and does not work when teachers work together to integrate vocational and academic education. It provides educators involved in the day-to-day work of integrating vocational and academic education—from teachers to administrators—with many of the specifics for developing effective educational programs.

Collaborative Efforts Between Vocational and Academic Teachers: Strategies That Facilitate and Hinder the Efforts (MDS-164) was prepared by B. June Schmidt from the NCRVE site at Virginia Polytechnic Institute and State University. (For ordering information, see page 11.)

Table 4—Administrative Practices and Procedures

Effective Strategies	Barriers to Success
• Providing extensive staff development	• Not adequately monitoring inservice activities
• Providing time for vocational and academic teachers to meet together and to observe one another's classes	• Failing to get the full commitment of all teachers and guidance counselors
• Providing incentives for teachers to become involved in integration efforts and to implement new strategies	• Not updating teacher evaluation procedures to reflect changes the teachers are making in their instruction
• Undertaking a number of different public relations efforts to inform students, parents, and the community of changes taking place	
• Surveying teachers and students to learn about the impact of the changes	
• Surveying individuals from the business community to support changes being made	
• Using both formal and informal means of communication to gain support for the changes taking place	

A NEW VISION: Overhauling the Comprehensive High School

"Envision a school with an environment so rich in discovery opportunities that learning is a naturally occurring phenomenon that is engaging and self-motivating. Envision a school designed for the display and demonstration of learning and [doing] this all at a cost that is no greater than that of schools today."

This is the inspiring vision of comprehensive high schools fostered by a project whose goals were to synthesize concepts, ideas, research findings, and innovative practices for all components of high school design and to influence those with responsibility for future designs. The product, *New Designs for the Comprehensive High School*, is a two-volume report by George H. Copa and Virginia H. Pease that details effective "learner outcomes, learning processes, organization, staffing, and partnerships . . . in realistic ways . . . to influence decisionmakers in the areas of benefits, changes, and costs."

Problems in the national and world economies have inspired numerous proposals for improving the condition of families, workplaces, and communities suffering the effects of economic stagnation. Particularly in the United States, reforming education—and specifically high school education—is "always near the top of the list" of proposed solutions. "From an outside-the-school perspective," *New Designs* contends, "the problem with high schools . . . usually focuses on cost and lack of sufficient learning." A preliminary conclusion of the report, however, is that the problem with high schools is threefold:

1. Most teenagers today attend high schools that show little connection to what is happening in the workplace, families, and communities.

2. In today's information-centered world, too many students are still presorted and channeled into "tracks" of learners which foster inequity and consign many to diets of "scholastic junk food."

3. Generally lacking in today's educational system is a common vision for and solid commitment to clear educational goals.

Written for those with an eye toward effective high school reform, it is these three issues that the New Designs project addressed.

The process being followed was as important as the resulting new design specifications

The project was driven by a "design-down" process in which subsequent phases followed closely from preceding phases. In each phase of the project, a corresponding aspect of reform was addressed. The design-down process facilitated challenging assumptions about designing schools that were not consistent with the design specifications of prior phases. Interestingly, it became apparent during the project that "the process being followed was as important as the resulting new design specifications." In the end, project participants realized that any school system desiring comprehensive, effective reform would need to go through an equivalent process themselves, "taking into consideration . . . design specifications and significant questions, while tailoring the final design to their own situation." The organization of *New Designs*—and of the report's highlights presented later in this review—reflects the project's innovative design process.

To ensure that the designs being developed were strategically effective and practically workable, the new designs were developed in close collaboration

with practicing educators, policymakers, community representatives, and government officials. The collaboration was achieved in two ways: with the creation of (1) an advisory design group with broad national representation and (2) focus groups formed to help with the individual phases of developing new design specifications.

The Design Group consisted of "bright people who were quick studies on design problems and knowledgeable about schools and students." They were "well-respected among the groups they represented and recognized for their leadership and commitment to improving schools." The group's aim was "to critically review the rationale for each phase's design specifications and assist in developing consensus on those specifications." The Design Group met in five two-day meetings during which members discussed a set of key questions relating to the phase of the process on the agenda. A sixth, one-day meeting was held to review the project's final report.

Focus groups involving people from school settings were used to gather information about specific aspects of the design work. Each focus group brought together a small group of individuals representing an area of interest, involved the group in a group interview using a set of leading questions, and resulted in a detailed interview analysis. Focus groups were conducted around the learner outcomes, learning process, learning staff, and learning environment phases of the project, while the learning organization phase was informed by a school visit.

Also as part of the project, a series of research and synthesis papers summarizing research and "best practices" in each phase area of the project were developed. (These papers are provided in the *New Designs* appendices, Vol. 2 of the report.) The papers served as background for Design Group meetings, include design specifications, and pose a series of "smart questions" that any school district would need to ask when designing a new school. Papers covering the following "learning" areas were developed: outcomes, process, organization, decision making, partnerships, staff, technology, environment, and costs. In addition, a research and synthesis paper was developed to chart the history of the comprehensive high school in the United States; a paper was also developed to describe the designs of high schools in other industrialized nations.

The bulk of the first volume of *New Designs* is dedicated to discussing the various aspects of reform and the corresponding phases of the project. Most sections begin with "Highlights from Research and Practice," and all end with "Design Specifications." The following are highlights from the report's major sections and from the corresponding phases of the New Designs project.

Learning Signature

The authors note that there is "considerable research . . . to suggest that high schools with focus or special character are more effective on a number of fronts"—not the least of which is providing "coherence to many otherwise seemingly unrelated dimensions of the school." In the New Designs project, the school's focus or character was called a learning signature. Signatures for any New Designs school would be unique, but the Design Group specifies that a learning signature functions in several ways, including

- giving specialness and character to the school,
- giving focus and coherence to all components of the school, and
- powerfully communicating the vision for the school.

Learner Outcomes

Along with the learning signature, learner outcomes are the keystone of the New Designs specifications:

> The very nature of being comprehensive sometimes discourages the development of a discernible focus for the high school's educational programs. When this happens, developing the aims and objectives of education for the comprehensive high school becomes particularly problematic. For those reasons, the Design Group believes that the desired learner outcomes should help define

the focus by providing intellectually and morally sound statements of the purposes of schooling for the important stakeholders of the high school.

Based on consideration of research and practice, the Design Group specifies that learner outcomes should

- focus on the customers of the school,
- be able to survive tests of legitimacy from the stakeholders in the school, and
- represent balanced attention to all areas of human talent and development.

Other specifications for learning outcomes are also given in the *New Designs* report.

Learning Process

According to the report, all students in a school need to achieve a common set of learner outcomes; yet students differ in many ways. As a result, the learning process—defined by *New Designs* in terms of curriculum, assessment, and instruction—must "flexibly serve each student" so that each individual reaches common learner outcomes. Suggesting the use of comprehensive learner outcomes with firm standards, a unified foundation of vocational and academic education, and learning projects and products, the Design Group gives the following as some of the specifications for the learning process:

- The learning process should be relevant to the life experience of the student.
- The learning process should be active and experiential for each student.
- The learning process should be rigorous for each student.

Learning Organization

According to the Design Group, at least five features of learning organization need attention: (1) learners, (2) learning settings, (3) learning processes, (4) learning time, and (5) learning staff. With these features in mind, project participants recommend the following specifications, among others:

- Organization should be responsive to the individual learning plans of the student population. Students should be involved in the planning process that leads to a flexible learning plan that is periodically reviewed.
- Curriculum should be organized in a manner that encourages and allows integration of the individual discipline areas.
- Staff should be connected to students in ways that provide maximum opportunities to focus or to change direction as students move toward completion of high school.

Learning Decision Making

Because schools tend to operate under many rules rather than a few guiding specifications, the rules and comfortable traditions over time create inertia. According to the project's plan for new designs, however, "people and the organization will be changing and growing because of the interaction of subject matter and people in the learning community." Therefore, new school design "needs to be guided by a newer vision of decision-making processes that will counteract inertia and accommodate continuous growth and transition." With this in mind, the Design Group's design recommendations include the following:

- Decisions should be deeply rooted in and aligned with the signature and learner outcomes of the high school.
- Decision making should encompass the voices of staff, students, partners, and the broader community.
- Decision making should be authoritative, not necessarily democratic, and recognize that authority is vested unequally.

Learning Partnerships

Considering the breadth of proposed learner outcomes and learning process expectations, the Design Group found it necessary to look beyond traditional school boundaries for catalysts and resources for learning. Entities such as the family, business and industry, community organizations, and other schools represent such outside "partners." Based on a review of research and practice, the project recommends the following among its design specifications:

- Partnership efforts should aim toward developing collaborative and interactive partnerships.
- Partnership efforts should aim toward "want to/ want to" motivation among partners.
- Partnerships should set realistic and clearly stated expectations for the partnership.

Learning Staff

"*Staffing* refers to everyone directly involved in the learning process, as well as those in supporting roles from janitor to secretary to bus driver to food service provider to parent volunteer to administrator to school board member." Because of the design-down process, staffing in the new comprehensive high schools is considered in terms of all previous design components. Design specifications recommended for staffing and staff development include the following:

- Staff should exhibit character qualities and conduct that are set as expectations of high school graduates.
- Staff should understand how to look at curriculum, assessment, and instruction as an integrated whole to achieve learner outcomes.
- Staff should know how to construct, research, develop, and write an interdisciplinary and integrated curriculum that addresses learner outcomes.

Learning Technology

There is ample evidence that the common practice of simply adding technology cannot achieve changes without modification of the other dimensions of school. However, where stakeholders are redefining what goes on within classrooms and school and are rethinking the way teachers teach and students learn, new technology is playing a key facilitative role in the transformation process.

Thus, with respect to learning technology, the following are among what all learners and staff should be able to do:

- Access the same personal productivity tools used to increase the effectiveness and efficiency of adults in the workplace, home, and community.
- Access multimedia tools for information retrieval, manipulation, knowledge production, and presentation.
- Use an installed, backbone network providing access to almost any station on the network and to resources beyond the school through telecommunications.

Learning Environment

While the public's image of school facilities will be difficult to transform, *New Designs* contends that it is "possible, important, and necessary" to design facilities that differ sharply from traditional school facilities. Drawings of an actual facilities archetype designed by professional architects are provided in the report. Included among the Design Group's specifications are the following:

- Personal workstation groups (rather than classrooms) are the basic building blocks of the school.
- Family groups of approximately one hundred pupils located in a house structure provide for individual and group access to resource/ production space as a way to facilitate project focused tasks.

- Flexible studios free school organization from the limitations of the physical environment and facilitate natural integration of vocational and academic education.

Learning Cost

The final phase of the project analyzed the operating costs of New Designs schools in various scenarios and came to several conclusions, including the following:

- Operational costs associated with the traditional high school are not necessarily adequate or appropriate to accomplish the mission of high schools.

- Operational costs associated with implementation of the new designs will vary in response to local circumstances and conditions.

- The more the work environment of the high school is organized and operated consistent with the adult world of work, the more opportunities are created to share equipment, materials, human resources, and training activities and to contain costs.

Near the end of *New Designs*, the report's authors summarize the New Designs project's unique contributions and list some of the general "lessons" that the group learned. Having worked through the design process, New Designs project members make the following four recommendations:

1. Results of the New Designs project should be disseminated to public education decision- and policymakers to create awareness and provide information about the project's results.

2. Local design teams serious about high school redesign should begin working through each phase of the design-down process. To prepare themselves for the debate that will inevitably develop, design teams should review the "smart" questions which appear in each of the research and synthesis papers of Volume II.

3. New Designs prototype schools should be established to test and refine design specifications.

4. Since the aim of the project was to provide better opportunities and outcomes for students, student achievement in the prototypes should be measured.

New Designs is an exciting and practical source for what the future can offer the United States and its students.

New Designs for the Comprehensive High School (MDS-282) was prepared by George H. Copa and Virginia H. Pease from the NCRVE site at the University of Minnesota. (For ordering information, see below.)

ORDERING INFORMATION

Collaborative Efforts Between Vocational and Academic Teachers: Strategies That Facilitate and Hinder the Efforts

MDS-164	B. J. Schmidt	$2.75

New Designs for the Comprehensive High School (2 vols.)

MDS-282	G. H. Copa V. H. Pease	$27.50

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Designed as a *change agent*, NCRVE is a consortium of seven nationally recognized institutions that hold a deep commitment to the vocational education community. The University of California at Berkeley is the lead institution. The presence of a NCRVE site in nearly every region of the country places NCRVE in direct touch with the enormous diversity of regional vocational needs as well as with the practitioners NCRVE ultimately serves.

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NCRVE focuses its resources on responding to two goals:

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2. Acting as a catalyst for a shift to an economy dominated by a skilled and flexible workforce, one that maximizes both global competitiveness and individual potential, in which firms use more skilled and productive workers and provide the appropriate incentives for education and training

These two goals reflect a multifaceted trend—emerging vocationalism—that NCRVE is committed to encourage. They also form the basis for NCRVE's research and development as well as its dissemination and training agendas.

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CHALLENGES AND CHANGES
Thinking Twice about the Status Quo

Two recent NCRVE publications have undertaken constructive challenges to the status quo: one challenges the subject-centered or departmental structure of schools; the other challenges assumptions about workplace literacy.

A Point of Departure for Rethinking School Structure

Stretching the Subject: The Subject Organization of High Schools and the Transformation of Work Education by Judith Warren Little "explores the ways in which perspectives on subject matter teaching and investments in departmental structure serve as resources or obstacles in the pursuit of more closely integrated vocational and academic goals." Proposals to integrate the two challenge both traditional dichotomies between academic study and workplace realities and hierarchies that marginalize vocational studies in favor of academics. They also respond to criticisms that neither academic nor formally designated vocational curriculums adequately prepare students for the workplace.

Proposals for integration in fact spring from such criticisms. Such proposals promise stronger connections between school knowledge and meaningful use of knowledge. They propose remedies to subject fragmentation and to the opportunity and outcomes inequities of schooling. They also give significant attention to preparation for work and participation in a democratic society.

The explorations of *Stretching the Subject* begin with an overview of the "legacy" of subject specialism in terms of teachers' responses to vocational goals. The monograph then summarizes contemporary challenges to subject specialism and outlines three responses that are in principle consistent with the integration of vocational and academic education: (1) academic enhancement of vocational courses, (2) transformations in the teaching of academic subjects, and (3) reforms in the social organization of schools (as it relates to the integration of vocational and academic education). The third section of *Stretching the Subject* assesses four contributions of vocational education to vocational and academic integration: (1) expanded definitions of work education, (2) instructional practices bridging theory and practice, (3) use of authentic assessment, and (4) commitments to disengaged students.

Stretching the Subject is informed throughout by anecdotal evidence from teachers, school observations, and selected documents as well as by recent studies of the subject organization of high schools. While the monograph "does not offer a definitive set of findings," it does "suggest a provisional agenda for talk, observation, and action" and does "contribute to discussion and debate, to the framing of problems, and to the design of local experiments." In addition, Little ends with four provisional conclusions:

1. *The subject organization of secondary schools is steadfast and resilient.* There are no cases in which the traditional organization of schools has been supplanted.

2. *Teacher commitment to the subject disciplines and response to subject reform proposals are mediated by beliefs about students.* Subject is not "the whole story": apparent in teachers' accounts of *what* they teach are commentaries about *whom* they teach.

3. *Various reform efforts compete for teachers' time and attention*, often pulling them in opposing directions. Efforts to enhance the teaching of academic subjects are more powerful than those for vocational education.

4. *Persuasive examples of vocational-academic integration are scarce.*

Little calls these conclusions provisional because "they express our present understanding . . . and serve as the point of departure for subsequent work."

Does "Functional Literacy" Equal "Literacy"?

There is a widely held public perception that the nation's global competitiveness depends in large part on the literacy of its workers. Following the federal

example of the 1980s and though at first reluctant, companies are deciding in greater numbers to invest in workplace education programs. Katherine Schultz, author of *Training for Basic Skills or Educating Workers?: Changing Conceptions of Workplace Education Programs*, contends that because of their growing prevalence, the time has come to assess existing workplace education programs and consider new possibilities for the future of such programs. For her assessment, Schultz examined programs funded by the U.S. Department of Education National Workplace Literacy Program. She contends that while workplace initiatives like those of the National Workplace Literacy Program are still relatively new, an "orthodoxy of program development, based on particular understandings of literacy and learning, has already emerged." With this in mind, Schultz develops a set of matrices to examine the assumptions of workplace education programs, uncover the orthodoxy, examine the swift acceptance of the resulting program designs, and attempt to expand or otherwise modify dominant paradigms.

The modern workplace requires an expanded definition of literacy that transcends isolated skills

The arguments of *Training for Basic Skills*, according to Schultz, are not meant to be definitive but are intended as tools for workplace program planners to closely assess their assumptions, plan their programs, and set a future research agenda for workplace initiatives. The assumptions Schultz examines relate to four fundamental areas of workplace education: (1) literacy and workplace literacy, (2) curriculum and curriculum development, (3) teachers and teaching, and (4) learners and learning.

Literacy and Workplace Literacy

Most workplace education programs use the term "functional literacy" to describe the content of their programs. Programs using such a narrow definition—a definition referring only to the skills necessary for performing work or functioning in society—risk "limiting their scope and thus their ultimate impact on both the workplace and on learners' lives." Defining literacy as "functional literacy" results in the teaching of discrete skills and ties curriculum to a sequence in which competencies are mastered and assessed—necessarily, according to Schultz. However, a "broader more inclusive understanding of teaching and learning may be more appropriate." The modern workplace, say experts, requires an expanded definition of literacy that transcends isolated skills and broaches the notion of literacy (or literac*ies*) as "social practices and critique."

Curriculum and Curriculum Development

Like literacy, a dominant paradigm of curriculum development in workplace education programs also exists. When planners customize their workplace programs to develop "functional context curricula," as most do, they use procedures called "job task analyses" or "literacy audits." These kinds of development processes have become axiomatic, contends Schultz. The usual result is a list of skills and subskills rather than "a broader understanding of teaching and learning literate practices." "Furthermore, and perhaps even more importantly," Schultz states, "the dominant ideology which supports this single way of conceptualizing the curriculum necessarily limits the possibilities for teaching and learning."

Teachers and Teaching

Schultz's examination in *Training for Basic Skills* reveals that most programs rely on three factors in describing teachers and teaching: (1) qualifications of teachers, (2) facts about instructional settings, and (3) number of contact hours. Rarely is the use of particular instructional strategies mentioned; even rarer are descriptions of pedagogy and theories of teaching and learning. On the one hand, program advocates assert that standardized tests are inadequate instruments of learning, yet almost all programs use such tests and report scores. At the same time, they imply, if not assert outrightly—and fallaciously, it seems—that the number of contact hours is indicative of learning.

Learners and Learning

Schultz contends that the ways in which most programs describe learning (and teaching) reinforce "an essentially Tayloristic view of work, a perspective which advocates a system of mass production" based on a fragmentation of the production process. So while U.S. employers are using innovative forms of work organization with reorganized participation structures and interaction patterns, the same employers elect to teach and evaluate their employees with traditional methods. Schultz recommends that

workplace education program designers "explore a wide range of possibilities" rather than accept a limited model for design and implementation.

In the final section of *Training for Basic Skills,* Schultz generates a set of matrices planners can themselves use "to examine the new orthodoxy, to interrogate whether we should rush so quickly into accepting a single way of conceptualizing and designing programs, and to suggest ways to change or at least broaden the dominant paradigms." The matrices are based on definitions of literacy, curriculum and curriculum development, teaching and learning, partnerships and participation, and success. They are intended to inspire those responsible for workplace education programs "to classify and understand existing programs and to imagine a wide range of possibilities," to help "clarify the decisions program directors make, the assumptions held by various partners, and the range and variation of programs across the country." The matrices offer new ways for programs to conceptualize their purposes, their ways of operation, and their methods of assessing their programs. "Perhaps most importantly," Schultz concludes, "these matrices suggest the possibility for both challenging and changing the new orthodoxy that has already beset workplace education programs."

Stretching the Subject: The Subject Organization of High Schools and the Transformation of Work Education (MDS-471) was prepared by Judith Warren Little from the NCRVE site at the University of California at Berkeley. (For ordering information, see page 12.)

Training for Basic Skills or Educating Workers? Changing Conceptions of Workplace Education Programs (MDS-255) was prepared by Katherine Schultz from the NCRVE site at the University of California at Berkeley. (For ordering information, see page 12.)

APPLES AND ORANGES?

Comparing Vocational and Academic Integration to Other Education Reforms

Research by the National Center for Research in Vocational Education (NCRVE) has clarified that the integration of vocational and academic education is not only a way of reshaping vocational education but also an approach to reconstructing the high school for all students. However, there are numerous other reform movements now taking root in schools across the country, and an obvious question concerns how the efforts at integration are consistent with—or possibly inconsistent with—other reforms.

It is around this question that the new NCRVE publication *Making High Schools Work: Patterns of School Reform and the Integration of Vocational and Academic Education* by Erika Nielsen Andrew and W. Norton Grubb revolves. *Making High Schools Work* is an informative overview and analysis of the various reform efforts at work in American high schools.

To answer the question, Nielsen Andrew and Grubb examined a variety of reform efforts to clarify the similarities and differences between those efforts and efforts to integrate vocational and academic education. They found that some substantial similarities between integration efforts and some other reforms exist. At the same time, there are reforms that unlike vocational and academic integration, do not focus on occupationally oriented content, although their structures may be similar.

The authors define four categories of school reform. As one might expect, all reforms propose to improve student learning and achievement. Each reform varies in its approach to reform, however—whether it be from teaching, curriculum, school structure, or some other perspective. The approach of any given reform is indicative of the reform's assumptions about both just what it is that needs improving in schools and the origins of the problems.

At the same time, the approaches are further differentiated by the degree or extent to which particular changes are advocated—from marginal to more comprehensive. Just as the types of reforms are sometimes comparable, however, so are the proposed extents of the reforms. Nielsen Andrew and Grubb note that "despite the differences among the reform approaches, the examples of the most comprehensive efforts are very similar among themselves" and to the occupational clusters model described in a popular NCRVE publication, *"The Cunning Hand, the Cultured Mind": Models for Integrating Vocational and Academic Education*: "They are similar in terms of degree of change, philosophy of learning, roles of teacher and student, types of curricular changes, and overall beliefs in restructuring schools away from the factory model/'shopping mall high school' design to a model of student and school accountability." (See page 12 for *"The Cunning Hand, the Cultured Mind"* ordering information.)

The four main school reform approaches as defined in *Making High Schools Work* are included in Figure 1.

Figure 1—Categories of School Reform

1. *Teacher professionalization*
   Schools in this approach view teacher change as the linchpin of school change. Teacher change refers to retraining, induction, and transformation to professional status and professional design for the organization (e.g., professional accountability, autonomy and discretion, and client-centered orientation). Schools in this approach range from those simply implementing school-based management to those reinventing schools around the ideas of the American Federation of Teachers' and the Holmes Group's Professional Practice Schools, which are akin to teaching hospitals. All the examples of this approach, from the range of the spectrum, view bureaucratic norms and regulations as the villain.

2. *Curricular and teaching reform*
   Schools in this approach usually begin at the classroom level to redesign curriculum and instruction around a new philosophy of learning, one that departs from the pervasive practice in schools where students receive collections of decontextualized and decomposed bits of knowledge, skills and drills, and teacher talk. The new philosophy of learning is primarily based on the research findings of the cognitive scientists that advocate active, student-centered, project-driven methods that have been typical in the best vocational classrooms. In the most conservative examples within this approach, curricular integration may occur only within a single subject or across two subject areas while the rest of the high school remains fairly well intact. In the more comprehensive examples, the entire school is essentially redesigned around the new philosophy of learning. For this reason, these examples may also fit the description of a restructuring school in its most comprehensive form.

3. *Schools of choice*
   There are many conceptions of choice, ranging from school- and district-level (including intradistrict, interdistrict, and magnet plans) to state plans. Magnets have become popular for many reasons, including fostering racial desegregation, providing choice to parents and students, and developing "focus schools." While some magnets are not occupationally oriented, many are—and they provide the same opportunities for integrating vocational and academic education that single-occupation high schools do. As with most projects, purpose dictates design. Many magnet schools were created in the early 1980s as part of the Emergency School Aid Act. The language in this federal act recommended that magnet schools be *either* centers of curriculum specialty *or* instructional delivery. As a consequence, many magnet schools seem not to combine specialized curriculum with progressive instructional delivery.

4. *Restructuring*
   This is a relatively new conception of school change and one that means various things to various people. The term is used as a way of describing choice programs, of waiving regulations, of empowering teachers, of forming partnerships, of promoting higher order learning outcomes, and of instituting school-based management. Despite this variation, supporters tend to agree that restructuring requires a fundamental rethinking of schooling to move the locus of control to the school level to create student/teacher-centered schools. This idea is no doubt in direct response to the failure of earlier reform attempts that were imposed from the outside. The implication of this belief is that no two schools will be "restructured" in the same way. Most schools in the process of restructuring, however, will make changes in the processes of learning and teaching, curriculum, accountability, school organization, and decision making to create a new paradigm.

Like the most comprehensive and far-reaching efforts at vocational-academic integration, the most ambitious school reform efforts attempt to reconstruct the high school beginning at fundamental levels. While such reforms often lack the occupational focus of vocational and academic integration, like the better integration examples, they rely on restructuring schools around new conceptions of learning. Brief descriptions of these reconceptions are included in Figure 2.

Figure 2—Methods of Reconceiving Schools

- Eliminating the "shopping mall high school," where students are free to make choices that lack relevance to their future and lack personal meaning and where students sample courses without making connections among them or commitment to any occupational path.
- Replacing the shopping mall high school with the infrastructure of a "focus school"—attention to student outcomes; strong social contracts that communicate reciprocal responsibilities; focused curricula; problem-solving organizational focus; and accountability.
- Enhancing student engagement by replacing conventional teacher-centered instruction with more project-oriented, contextualized methods.
- Reducing the isolation of teachers by creating new opportunities, expectations, and school infrastructures.
- Reducing the tracking and segregation of students by creating more homogeneous groupings.

The implementation process, contend Nielsen Andrew and Grubb, is perhaps the most important aspect of the reforms—certain elements are required to succeed. Some of the most important of these implementation elements are described in Figure 3.

Figure 3—Important Elements of the Implementation Process

- *Vision and commitment.* A common vision helps align the efforts of everyone in the school toward consensual ends. It is best if teachers initiate the change; commitment depends on dissatisfaction with the status quo which in turn motivates teachers to find a new goal that is both desirable and feasible.
- *Consistent support from administrators and state officials*, usually in the form of waivers of district and state regulations. In addition, the personality of the leadership parties has proven to be a crucial ingredient of successful implementation. Learning is most inspired in an organizational infrastructure which emphasizes development, experimentation and problem solving, and teacher participation.
- *New resources*, especially for release time and time for teachers to be together during the work day. Collegial support seems to be a main ingredient in working through the value conflicts inherent in schools, in building support and eliminating sabotage, and in moving people over the "implementation dip."
- *Sustained efforts.* Most schools expect school redesign to take at least five years from planning to implementation. In addition, individuals within the school need to proceed at their own developmental pace in adopting the change because change is personal before it is institutional.
- *Teacher training*, especially in the new roles teachers are expected to assume as professionals. Long-term learning is enhanced through follow-up procedures such as observation, follow-up meetings, and coaching.
- *Teacher support*—in the form of networks, release time, exposure to other reform efforts, and conferences.
- *A critical mass of teacher advocates* within the school to get the reform moving and ensure implementation.
- *Ownership*, usually in the form of shared power.

There are other similarities between the effort to integrate vocational and academic education and other school reforms in addition to those listed above. "In general," note Nielsen Andrew and Grubb, "the most comprehensive examples of each movement share a belief in curricular integration, a common curriculum for all students, a meaning-making pedagogy, and an environment of professional collaboration. Given these similarities, it is not surprising to see reform examples converging and joining forces." While there are many examples of such convergence, including efforts to provide all students with a common curriculum, there are few reforms that describe the integration of vocational and academic education as a possible solution, note the authors. As a result, few reform efforts make connections to the outside world, a common theme of vocational and academic integration reforms.

Making High Schools Work is only a beginning; there are both political and substantive purposes for studying related reforms: The political purpose—"it may be easier to get schools to integrate if similarities to other 'hot' reforms are clarified. In addition, it may be easier to persuade the academic side about the validity of integration if they can see it related to other, academically respectable reform efforts." The substantive purpose—"the processes of implementing reforms are similar; we can learn from the experience of others."

Making High Schools Work: Patterns of School Reform and the Integration of Vocational and Academic Education (MDS-253) was prepared by Erika Nielsen Andrew and W. Norton Grubb from the NCRVE site at the University of California at Berkeley. (For ordering information, see page 12.)

EXPLORING ASSUMPTIONS
Getting to the Root of Curriculum Distribution

Initially, the authors of *Educational Matchmaking: Academic and Vocational Tracking in Comprehensive High Schools*—Jeannie Oakes, Molly Selvin, Lynn Karoly, and Gretchen Guiton—set out to investigate the range and quality of vocational offerings at comprehensive high schools serving various student populations. They wanted to examine the student needs that secondary school vocational programs are intended to meet.

Not long after they began their study of three West Coast high schools, however, the authors realized that vocational course offerings and course taking were not a significant part of curriculum decision making at any of the three schools: "Instead, curriculum decisions centered almost exclusively on the schools' academic offerings and on mechanisms for placing students of different academic abilities into classes at the 'right' level." As a result, the authors spent two years investigating curriculum tracking in general, especially the factors guiding decisions about the vocational and academic classes students take.

For a long time, American schools have offered a variety of high school courses at a wide range of difficulty levels, attempting to accommodate the strengths and weaknesses of students. This system, however, has tended to track immigrant, poor, and minority youth in low-level academic and vocational courses, reserving academic, college-preparatory programs for upper- and middle-class whites. Especially during the 1980s, this "split curriculum" was criticized by policymakers, employers, civil rights groups, and children's advocates for being both ineffective and inequitable.

Vocational course offerings and course taking were not a significant part of curriculum decision making

Among the reforms that have been proposed in the wake of such criticisms are efforts aimed at integrating vocational and academic education, which "attempt to reconstruct the high school curriculum in ways that break down the distinctions between the academic and vocational domains." Rather than merely improving vocational education, these reforms aim to reconceptualize all education by engendering an enhanced body of knowledge, skills, and attitudes "through multimodal learning, problem solving, and

activities lodged in real experience." Policymakers and educators, the authors contend, will be required to understand the assumptions and practices that sustain the split curriculum paradigm before they can convince schools and build the capacity of schools to undertake reforms that integrate curricula.

State policies press schools to skew the curriculum toward academic courses and college preparation

From the human capitalist theorists who contend that schools offer a wide variety of opportunities in which students can "invest" to the most critical theorists who argue that curriculum distribution has been used "to transmit occupational and social position from one generation to the next"—"most scholars who have studied the differentiated high school curriculum and the sorting patterns associated with it suggest that, for good or ill, they have served important educational and social purposes." While such theories imply deliberate and consistent action on the part of schools, other researchers have noted numerous inconsistencies in curriculum offerings and distribution among students as well as in the process of distribution, providing evidence that curriculum distribution is affected as much by organizational dynamics as societal forces and individual choices.

Given both the need to make sense of curriculum distribution and the diversity of theories about it, *Educational Matchmaking* endeavors "to understand better the rationale and processes that underlie schools' course offerings and students' course taking and draws implications from these for the reform of vocational education."

Findings

The findings of *Educational Matchmaking* were borne out by both a field study and a verification transcript study of the three pseudonymous West Coast schools—Coolidge, Washington, and McKinley. While the schools are located in adjacent communities and therefore share certain relevant characteristics, they varied in their student populations. Coolidge students are racially and socioeconomically diverse; Washington's are overwhelmingly middle- and upper-middle-class whites and Asians; and McKinley's are generally African American and Latino, many of whom are low-income.

Although the schools' curriculum offerings and assignment practices are similar and all three schools make assumptions about the abilities and needs of students, those offerings and assignments also vary in significant ways. The assumptions schools make relate significantly to the race and socioeconomic status of students and guide decisions about curriculum distribution as rationalized, articulated policies. Student demographics also guide decisions about the investment of discretionary curriculum resources and individual student placement. Having dissimilar student populations, therefore, the schools' offerings and assignments were dissimilar in significant ways. Despite rationalized, sometimes biased approaches to curriculum distribution, rational decisions were often supplanted, constrained, or otherwise affected by state graduation requirements; declining enrollments; and the complexities of operating a large, bureaucratic institution. Therefore, there was "a lack of fidelity between the realities of the curriculum and that envisioned as ideal by the schools' staff."

However, each of the schools and demographic groups was affected differently. In general, the more advantaged the school, the more stable and resilient to external forces it was. Also, the highest-status, academic-curriculum students at each school

> appeared to have the best defined and carefully sequenced programs available and the most stable placement patterns. Those at the very bottom seemed to have access to few coherent programs, . . . but they appeared to experience considerable stability in their placements. . . . School constraints appeared to provide those students in the middle with neither the coherent programs experienced by those at the top nor such stable placements as those found at either the top or the bottom.

As for vocational course taking, the national pattern of low-income and disadvantaged minority students taking more vocational courses than their white, middle-class counterparts was confirmed at these three schools: vocational education is considered "best suited for students who are not expected to be successful in academic programs." Evidence from among and within schools suggests that neither student choice nor achievement screening are lone explanations for concentrated vocational course

taking. There is evidence that race, ethnicity, and social class independent of achievement are factors in the variation of vocational participation within schools and between them.

As for academic course taking, participation in college-prep math ranges from 22% at McKinley to 45% at Washington. Likely the result of higher graduation requirements in English than in math, almost 50% of eleventh graders at the three schools take college-prep English. According to *Educational Matchmaking*, variations in access to college-prep courses appear to be determined by several factors, both among and within schools, including race and number of vocational courses taken—but not necessarily achievement.

Given the findings of their field work and transcript analyses, the authors of *Educational Matchmaking* propose an explanation of the curriculum decision-making process. Their explanation is built on eight propositions, listed in Figure 1.

Figure 1—Propositions on Which the Curriculum Decision-Making Process Is Based

1. Schools judge students' abilities, motivation, and aspirations, and they consider these characteristics relatively fixed by the time students reach high school.
2. Schools seek to develop and allocate curriculum opportunities in ways that accommodate these student characteristics. The notion that the curriculum might alter students' abilities and motivation is not salient.
3. Despite considerable curriculum similarity among schools, individual schools tailor curriculum to the characteristics of their students. Within schools, educators accommodate student differences by assigning them to different levels or types of courses thought to match their different abilities, needs, and future prospects.
4. Even as schools attempt to match students to programs and courses according to ability and motivation, students' race, ethnicity, and social class serve to "signal" different ability and motivation levels and influence students' assignments. Educators usually attribute race- and class-linked curriculum differences to student choice and prior achievement at school. At the same time, they feel considerable ambivalence about the differentiated curriculum and the way it links curriculum opportunities to race and class.
5. Schools' efforts to provide courses tailored to students' needs are constrained by ideological and structural regularities in the school culture. A strong and widely shared commitment to the idea of the "comprehensive high school" presses schools to divide their curriculum into academic and vocational programs in similar ways at very different schools. At the same time, state policies press schools to skew the curriculum toward academic courses and college preparation.
6. Declining resources and demographic shifts also constrain schools' efforts to offer a curriculum that meets their students' needs or to devote much attention to individual students' placements.
7. Although constraints interfere with the ability of schools to carry out decisions in the ways they would have liked, all schools and students are not affected in the same way. Irregularities in the distribution of curriculum opportunities tend to work to the advantage of the most advantaged students.

The findings of the *Educational Matchmaking* report indicate that high school vocational education programs and student participation in those programs can only be understood in relation to the rest of the curriculum. Therefore, advocates of reform involving vocational education must consider the larger context of the comprehensive high school in their efforts. Principally, based on the data of this study of three high schools, reformers must be aware that vocational education receives relatively little attention compared to academic education. There tend to be negative perceptions of vocational curriculum, faculty, and students. This situation, according to the authors, "establishes a strong need" for vocational education reforms as well as further experimentation and research.

Educational Matchmaking: Academic and Vocational Tracking in Comprehensive High Schools (MDS-127) was prepared by Jeannie Oaks, Molly Selvin, Lynn Karoly, and Gretchen Guiton from the NCRVE site at RAND. (For ordering information, see page 12.)

WORKPLACE INNOVATION
Reforming Education Reform

Today's employers need workers with a non-traditional set of skills. The traditional list of skills considered basic in American schools—reading, writing, and mathematics—is being augmented out of economic necessity. This is an assumption around which the recent NCRVE publication *School/Work: Economic Change and Educational Reform* by Thomas Bailey is written:

> Employers have had to confront profound economic and technological developments during the last fifteen years. Many organizations have failed to adjust, but many of those that have been most successful have shifted to innovative types of work organization. These changes not only require workers with stronger basic skills, but create a stronger demand for higher-level cognitive, problem-solving, and social skills.

One of the most significant shifts in work organization has been from traditional sequential forms of work to more integrated forms. In sequential approaches to work, products and services are produced in discrete, sequential steps by a variety of disparate work groups. Newer approaches allow for significantly more interaction among production phases, permitting more flexible responses to "today's rapidly changing markets and technology" and facilitating more rapid innovation in products and processes.

Work organization reforms are related to education reforms in at least two ways. First, revised work organization requires workers with a revised set of skills—skills learned in school. Second, education reforms parallel work reforms in substance, advent and rate of development, and assessibility. Significantly, work and education reform efforts are related in one other way: neither type of reform has much chance of success in isolation from other initiatives of the same type.

The early and middle part of the 1980s was dominated by a reform strategy focused on increasing academic requirements. Under this *quantitative* strategy, secondary schools provided a foundation of basic academics, while postsecondary schools provided the specific technical-occupational training. This strategy was more consistent with the traditional production strategy than the emerging integrated strategy and had, at best, ambiguous implications for racial equity and expanding minority populations.

In the latter part of the 1980s, reform moved along three lines: (1) reform in *content*, (2) reform in *organizational* or *procedural issues*, and (3) reform in *institutional relationships between schools and outside organizations*. Reforms along the first line advance curricular integration of vocational and academic education. Those along the second propose increased choice and greater decentralization in education. Reforms along the last advocate institutional integration such as Tech Prep links between secondary and postsecondary schools, schools-business partnerships, and customized training programs. Taken together—though they generally exist as diverse strands—the strategies in these categories constitute an overall integration-focused framework. At a very fundamental level, this model "challenges the sharp distinction between school and work or between learning in the classroom and learning [on] the job."

The next wave of educational reform should be based on the integration of schools and workplaces

This framework is indicative of current workplace reform. Workplaces have been changing along the dimensions of content, organization, and outside relationships. Consequently, if one of the roles of education is to prepare students for the world of work, schools must address these three dimensions (as evidenced by the three categories of educational reform). The underlying relationship among the three categories of education reform suggest that they are potentially coherent. Moreover, the history of work reform provides evidence that "partial or piecemeal implementation" of the integrated approach "is not effective."

The first two sections of *School/Work* explore the integration framework in detail. In the introduction, Bailey briefly reviews the recent history of educational reform, the changing economy, and related work reforms. He also considers "the potential problem of a 'too-close' relationship between education and work" and the problems of minority education as they relate to reform.

In the second section, Bailey develops the integration model of educational reform by drawing on contemporary knowledge of work restructuring and educational improvement. The model draws together many apparently disparate education reform policies and efforts as the basis for the model. The model developed "is an educational target, a reform strategy that is consistent with . . . [the] changing nature of work and education, the successes and failures of work and educational reform, and the results of contemporary reform programs and proposals."

Following the development of the integration model, *School/Work* recounts the recent history of education reform in New York City, Philadelphia, and Chicago. These accounts are used to assess movement toward an integration strategy in large public educational systems with significant minority populations and to explore possible barriers to achieving the goals of the integration strategy. Bailey notes that the three case studies can stand independently, suggesting the complexities and uniqueness of local vocational education reform efforts and the usefulness to readers interested in their educational systems.

The case studies suggested the following conclusions:

1. All three cities experienced significant similar basic economic and demographic trends.
2. The three cities displayed sharp differences in the extent of these same trends.
3. Despite the contrasts among the three cities, the commonalties seemed quite influential in shaping educational reform.
4. The most simplistic response to changing economies in the three cities involved changes in the occupations for which students were prepared.
5. In all three cities during the last decade, graduation requirements increased, though the effects of the increases varied sharply from city to city.
6. Many of the elements of the integration strategy—content, organizational, and institutional integration—have significant support.
7. Despite support for several elements of the integration strategy, movement towards a comprehensive reform is limited.
8. Decentralization of school organization reform is a complex and confusing process, as is decentralization of work organization reform.
9. As institutions that are well-suited to serve the emerging needs of the economy, community colleges have a well-defined role in the quantitative strategy but have farther to go than high schools in implementing a role consistent with the emerging economy.
10. Concerns about equity and minority access to education dominated educational reform in the 1960s and 1970s but gave way to a preoccupation with the economy in the 1980s.

In fact, it is this preoccupation with the economy and the resulting preoccupation with the role of the education system in preparing the workforce that distinguishes the 1980s from previous eras of reform. For education during much of the 1980s, these preoccupations manifested themselves in strengthening and expanding traditional academic education. But education and business initiatives in the latter half of the decade began to go beyond this traditional focus. Progressive companies moved from sequential workplace approaches to more integrated approaches, breaking down traditional separations and barriers among functions *within* firms. The basic argument of *School/Work* is that "the logic of the integration process should not stop at the boundary of the firm" and that "the next wave of educational reform . . . should be based on the integration of schools and workplaces in terms of educational content, organizational form, and institutional linkages.

Bailey notes that current strands of educational reform are already consistent with the principle of integration and that many individual reforms that had previously been seen as good pedagogic techniques are now perceived to be crucial for increased productivity and competitiveness. These facts, *School/Work* concludes, suggest that significant change in that direction may be possible.

School/Work: Economic Change and Educational Reform (MDS-098) was prepared by Thomas Bailey from the NCRVE site at Teachers College, Columbia University. (For ordering information, see page 12.)

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ABOUT NCRVE

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Contents

THE GOOD AND THE BAD
Assisting Teachers with the Integration of Vocational and Academic Education

How important is the integration of vocational and academic education? Very.

> Over the past several years, the integration of vocational and academic education has become recognized as a major reform in schools across the United States. . . . Reasons underlying the widespread interest in integration include the recognition that schools must change if they intend to better meet the needs of students and employers and a legislative mandate to integrate vocational and academic education. . . . A parallel reason that vocational and academic education integration has been accepted is a result of its goals. . . . One goal of integration is to provide occupational, academic, and higher order skills to all students, thus enabling them to function effectively in a technological society, [an] information-based economy, and [a] globally competitive marketplace. A second goal relates to . . . cognitive psychologists' research findings [about] enhanc[ing] students' learning. This goal focuses on teaching students academic and problem-solving skills simultaneously. Students in integrated settings are encouraged to recognize and solve problems through hands-on learning that reinforces academic skills.

So begins the first of three recent publications focusing on teachers and the integration of vocational and academic education by B. June Schmidt, Curtis R. Finch, and Susan L. Faulkner. Together, the three documents—*Teachers' Roles in the Integration of Vocational and Academic Education, Helping Teachers To Understand Their Roles in Integrating Vocational and Academic Education: A Practitioner's Guide*, and *Using Professional Development To Facilitate Vocational and Academic Education Integration: A Practitioner's Guide*—provide substantial, detailed information on the roles of both vocational and academic teachers in the vocational-academic integration process.

The study informing the three documents drew on a review of related research and on over one hundred interviews at ten geographically and structurally diverse schools sites. The school sites were selected from a pool of schools that had successfully implemented vocational-academic integration and had subsequently been nominated by national education leaders, state vocational education directors, and NCRVE researchers for that reason. Interviews solicited the views of practitioners—vocational and academic teachers, counselors, and administrators—involved in the integration process.

The first of the documents, *Teachers' Roles in the Integration of Vocational and Academic Education*, successfully addresses two of the four specific objectives of the research detailed in the three books: (1) to identify the roles played by teachers involved in integrating vocational and academic education and (2) to document the contexts within which integration takes place and the key players necessary to the integration process. The other two objectives are addressed separately in the other two documents in the series.

Teachers' Roles begins with a brief assessment of the current status of vocational-academic integration. Citing previous research, especially from NCRVE, the section addresses objectives of integration, models of integration, "key players" in integration, strategies that facilitate or hinder integration, and integration's ability to facilitate workplace skills. Noting the extensiveness of NCRVE research on integrating vocational and academic education in general, the authors of *Teachers' Roles* set out to clarify specifically the ways that teachers function in integrated settings:

> Simply suggesting or even legislating that teachers integrate vocational and academic instruction will not achieve the desired effect. Rather, the process of teaching in integrated settings must be documented in a comprehensive manner giving consideration to the contexts within which integration takes place and the key players in the integration process. It is from such an information base that professional development programs may be designed to truly meet the needs of teachers in integrated teaching settings.

The extensive interviews that inform *Teachers' Roles* and the analysis of those interviews, which constitute the bulk of the document, provide just such comprehensive documentation. (Note: The five appendices of *Teachers' Roles* provide details of interview protocols.) What emerge from the interviews are not simply six themes of the roles teachers play in the integration of vocational and academic education, but specific and concrete information *from experienced practitioners* on which to base the design of professional development programs for teachers. The themes and subthemes outlined in Figure 1 are thoroughly documented with quotations from the interviews in *Teachers' Roles*. From the themes, the authors of *Teachers' Roles* generate a series of integration stages within which teachers' roles are played out:

> The first three themes [cooperative efforts, curriculum strategies, and instructional strategies] identify stages of integration and roles within the stages that teachers assume as they move from school settings where little or no integration exists to settings were extensive integration efforts are underway. . . . The [administrative practices and procedures theme] can also be characterized in stages. The stages are, however, directed at actions of administrators that can help teachers assume roles outlined for them in the three previously discussed themes.

The other two themes, student outcomes and teacher outcomes, because they reflect positive instances of vocational and academic integration, define integration-perpetuating stages of a functioning integration system.

Figure 1—Themes of Teachers' Roles in the Integration of Vocational and Academic Education

Cooperative Efforts

Description

Collaboration between vocational and academic teachers related to the integration of vocational and academic education that does not specifically focus on curriculum development or instructional design and delivery

Subthemes

- Learning about one another
- Offering to help/asking for help
- Instructing one another
- Planning together
- Sharing information about students
- Assisting with others' instruction
- Dovetailing instruction
- Scheduling coordinated instruction

Curriculum Strategies

Description

Vocational teacher and/or vocational and academic teacher involvement in curriculum building that focuses on integrating vocational and academic curriculum content, organization, and sequence

Subthemes

- Coordinating assignments, projects, or instruction
- Planning meetings
- Aligning curriculum
- Changing from past instructional patterns and procedures
- Enhancing curriculum through involvement with business and industry
- Developing and designing projects

Instructional Strategies

Description

Vocational teacher or vocational and academic teacher involvement in actual instruction that integrates vocational and academic education

Subthemes

- Teaching as teams
- Approaching instruction through application
- Incorporating both vocational and academic skills in instruction
- Teaching cooperatively
- Using community people or resources in instruction
- Accepting student initiated instruction
- Using common teaching strategies

Administrative Practices and Procedures

Description

Activities typically performed by administrators that enhance the integration of vocational and academic education

Subthemes

- Facilitating the integration process
- Dealing with administrative constraints
- Handling teacher concerns
- Learning from experience

The following four subthemes focus on improving the administrative process:

- Scheduling and organizing classes
- Dealing with teacher resentment
- Involving teachers
- Seeking administrative support

Figure 1 (cont'd.)

Student Outcomes

Description

Student improvement resulting from the integration of vocational and academic education process

Subthemes

- Performing tasks better
- Learning across the curriculum
- Making better grades, passing classes, and staying in school
- Approaching integration through application
- Becoming more competent or proficient
- Accepting the importance of both vocational and academic programs

Teacher Outcomes

Description

Teacher improvement resulting from the integration of vocational and academic process

Subthemes

- Recognizing the value of integration
- Collaborating with other teachers
- Growing through professional development
- Teaming with others to teach
- Approaching teaching in various ways
- Becoming a more integrated teacher

The third and fourth of the four objectives of the study behind these three books—(3) to "prepare a set of teacher role statements with accompanying implementation procedures for use by teacher educators, administrators, supervisors, and teachers" and (4) to "prepare a set of guidelines that will provide practitioners with ways that professional development may be used to facilitate the integration process"—are addressed separately in the other two reports of the series: *Helping Teachers to Understand Their Roles in Integrating Vocational and Academic Education: A Practitioner's Guide* and *Using Professional Development to Facilitate Vocational and Academic Education Integration: A Practitioner's Guide*, respectively.

Implementing Integration: A Practical Companion

While *Teachers' Roles in the Integration of Vocational and Academic Education* helps to define and elaborate the roles that teachers fulfill in the process of vocational and academic integration, *Helping Teachers to Understand Their Roles in Integrating Vocational and Academic Education: A Practitioner's Guide* helps educational practitioners understand more fully and specifically just how teachers fulfill those roles. *Helping Teachers* addresses the involvement of teachers in four of the six theme areas introduced in *Teachers' Roles*: faculty cooperation, curriculum development, instructional strategies, and administrative practices and procedures. "Educational practitioners," according to *Helping Teachers*,

> can use information from [the] guide to help individual teachers, to help small groups of vocational and academic teachers working together, or as a resource for group meetings of teachers. Further, the guide can serve as an excellent resource for teacher educators working with both preservice and inservice teachers to help them understand the roles of teachers in the integration process.

While *Teachers' Roles* documented the experiences of practitioners in integrating vocational and academic education, *Helping Teachers* provides concrete suggestions and recommendations for actually implementing integration based on those practitioners' experiences. Because of the specifics it provides, *Helping Teachers*—like *Using Professional Development to Facilitate Vocational and Academic Education* (discussed later in this article)—is an invaluable practical companion to *Teachers' Roles* and the foundation it lays for implementing and improving vocational and academic integration.

Professional Development: Another Practical Companion

Especially true in schools where vocational and academic education integration is being initiated is the recognition that change is constant. That teacher preparation and development have not kept pace with what is needed in such schools has led to the realization that new preparation and development processes are required. In these settings, teachers will need assistance to shift from instructing in an independent and autonomous manner to becoming participating

members of the total school enterprise. Teachers must learn to function as members of professional teams, including teams operating within and across institutions.

Using Professional Development to Facilitate Vocational and Academic Education Integration: A Practitioner's Guide focuses briefly on ways that professional development may be tailored to assist educators in transforming their schools to more futuristic structures where vocational and academic education flourishes. First in the *Practitioner's Guide*, several of the new demands and realities of professional development are presented. Then, an emerging professional development paradigm is described. Finally, professional development approaches that administrators, teachers, and counselors can use to facilitate the integration of vocational and academic education are suggested. Based on discussions with professional educators at school sites in ten different states, these approaches are summarized below in a list of suggestions for providing relevant professional development. The suggestions presented should be of value to anyone who is currently initiating or planning to establish integrated programs:

- Use a variety of activities to build vocational and academic teacher teams. Examples include forming committees, setting up teamwork sessions, and sending groups to conferences and workshops.
- Utilize the "teachers teaching teachers" concept. Provide teachers who have developed integration-related skills with opportunities to share their expertise with other teachers.
- Employ teacher professional development teams whenever practicable. Using vocational and academic teacher teams to conduct professional development sessions and workshops exemplifies the integration concept.
- Schedule times when vocational and academic teachers can meet and work together. Change cannot take place unless teachers have quality time to meet and plan joint teaching activities.
- Empower teachers. Provide opportunities for groups of vocational and academic teachers to make significant curriculum and instruction-related decisions.
- Utilize the committee as a form of professional development where teachers have opportunities to meet other teachers and discover their different perspectives.
- Ensure that teachers are fully qualified to teach subjects that they are assigned to teach. The subtle aspects of integration are often not learned by reading a book. Likewise, many courses where content is integrated demand that teachers teach students in different ways.
- Facilitate rather than push the shift toward integration. To paraphrase an adage, "you can lead teachers to school, but you cannot make them integrate." Teachers must ultimately have the need and desire to integrate vocational and academic education.
- Build strong communication links with and among teachers. Keep teachers apprised of progress toward integration. Likewise, provide time for teachers to share their successes with other teachers and organize opportunities for vocational and academic teachers to get to know one another both professionally and socially.
- When organizing for integration, work closely with all teachers. No teacher or teacher group wants to feel left out of the process.

Taken as a whole, the three reports in this series provide a sound assessment of the good and the bad of integrating vocational and academic education. They would make valuable front-line resources for practitioners considering or in the midst of the integration process.

Teachers' Roles in the Integration of Vocational and Academic Education (MDS-275) was prepared by B. June Schmidt, Curtis R. Finch, and Susan L. Faulkner from the NCRVE site at the Virginia Polytechnic Institute and State University. (For ordering information, see page 12.)

Helping Teachers To Understand Their Roles in Integrating Vocational and Academic Education: A Practitioner's Guide (MDS-276) was prepared by B. June Schmidt, Curtis R. Finch, and Susan L. Faulkner from the NCRVE site at the Virginia Polytechnic Institute and State University. (For ordering information, see page 12.)

Using Professional Development to Facilitate Vocational and Academic Education Integration: A Practitioner's Guide (MDS-277) was prepared by B. June Schmidt, Curtis R. Finch, and Susan L. Faulkner from the NCRVE site at the Virginia Polytechnic Institute and State University. (For ordering information, see page 12.)

NOT JUST FOR PRINCIPALS

An Outline for the Integration of Vocational and Academic Education Speaks for Itself

While, as its title implies, Integrating Academic and Vocational Education Guidelines for Secondary School Principals *by B. June Schmidt, Lois A. Beeken, and Carol L. Jennings is intended for principals, the guidelines would actually be a valuable resource for* anyone *interested in a point-by-point outline of many practitioner-oriented integration issues. As they stand, the* Guidelines *are an excellent summary of much of the current research and other information related to the integration of vocational and academic education. The following overview of* Guidelines *is excerpted from the executive summary of this specific and very readable NCRVE document and alludes to some of its other strengths:*

The guidelines presented in this book were prepared with input from seventeen secondary school principals and administrators from across the United States. The document is written for individuals and school divisions that are contemplating or are in the process of integrating academic and vocational education. The guidelines are designed so that a school administrator who has a particular question or area of interest can proceed directly to a particular section for the answer. The guidelines begin with a brief discussion of two goals for integrating academic and vocational education: (1) to provide students with the appropriate skills to function in a global society and (2) to enhance students' learning. Following the goals, a justification for integrating academic and vocational education as well as a comparison of the skills emphasized in school versus the skills needed in the workplace are presented. The justification begins with a series of reports that emerged in the early 1980s, espousing educational reform and a movement to restructure the schools.

Next, the guidelines define the integration of academic and vocational education in practical terms. First, the integration as spelled out in the Carl D. Perkins Vocational and Applied Technology Education Act Amendments of 1990 is examined. Second, integration is interpreted based on the eight models defined through research efforts of the National Center for Research in Vocational Education (NCRVE). Finally, integration as related to the emerging concept of Tech Prep is examined.

Possible barriers to integrating academic and vocational education—including administrative, school, and teacher barriers—are identified with suggestions for eliminating them listed after each specific barrier. Following the section on barriers, the guidelines provide ways to encourage cooperative efforts between academic and vocational teachers.

The next section focuses on the roles of the key players in the integration process. The key players are academic and vocational teachers, secondary school principals, secondary school counselors, and secondary school administrators and supervisory personnel. During the integration process, teachers take on the roles of leader, team member, learner, and instructor. Secondary school principals take on the roles of supporter, communicator, motivator, delegator, and manager. Secondary school counselors assume the roles of team member, evaluator, and leader; and secondary school administrators and supervisory personnel assume the roles of supporter, communicator, motivator, delegator, and manager.

The strengths of this report are its breadth and its usability

Three aspects of the process for achieving the integration of academic and vocational education are presented. They are the planning stages, the marketing strategy, and strategies for policy changes. Then, there is a section based on NCRVE research of teachers' roles in the integration process. Specifically, effective curricular and instructional strategies that have been used by teachers in school divisions

that have successfully integrated academic and vocational education are listed.

Finally, there is a consolidated list of references used throughout the report as well as suggested transparency masters for use during faculty and staff inservice sessions and during informational sessions with school administrators.

The strengths of Integrating Academic and Vocational Education Guidelines for Secondary School Principals *are its breadth—evidenced in the executive summary "catalog" excerpt above—and its usability—the guidelines are organized chiefly in easily scanned and efficiently worded lists.* Guidelines *would be a handy condensed reference for the busy practitioner wanting to "stay on top" of this "hot" educational reform.*

Integrating Academic and Vocational Education: Guidelines for Secondary School Principals (MDS-297) was prepared by B. June Schmidt, Lois A. Beeken, and Carol L. Jennings from the NCRVE site at the Virginia Polytechnic Institute and State University. (For ordering information, see page 12.)

BEYOND SQUARE ONE

Drawing on the Experience of Others in Vocational and Academic Integration

An NCRVE report that should be of interest to policymakers, school administrators, and teachers who will be implementing the integration of vocational and academic education is *Integrating Academic and Vocational Education: Lessons from Eight Early Innovators* by Susan Bodilly, Kimberly Ramsey, Cathleen Stasz, and Rick Eden of RAND. The authors of *Lessons* studied the integration efforts of eight high schools in five states, and the *Lessons* report examines the implications of those schools' experience on education policy and future integration efforts.

Emphasizing the chasm that has traditionally separated vocational and academic education, *Lessons* opens with an outline of the defining characteristics of vocational and academic education and gives a brief history of their relationship. "Current interest in new approaches to schooling at the high school level," notes the report, "is the result of a wide variety of perceived problems experienced by students who graduate from the current divided system"—problems including "poor basic and generic work-related skills, inability to apply theory to practical problems, lack of engagement in school activities, and poor transition from high school to college or the workplace." The perception of and subsequent attack on the separateness of vocational and academic programs is at least in part responsible for federal mandating of vocational-academic integration through the 1990 Amendments to the Carl D. Perkins Vocational Education Act: "Funds made available shall be used to provide vocational education in [high school] programs that integrate [vocational and academic] education . . . so that students achieve both academic and occupational competencies."

In response to the federal mandates, states and local school systems are making efforts to integrate vocational and academic education and are looking for direction as they do. The purpose of *Lessons* is "to provide educators and educational policymakers with information about integration efforts of the study's eight schools, *Lessons* is intended to assist those seeking to improve high schools or to better understand debates over the various approaches to school reform and, specifically, those seeking to implement the Perkins Amendments:

> Implementing educational changes . . . is not straightforward. The high school is a complex organization that has complicated relationships with policymaking bodies. Integration efforts probably require changing many practices in the high school and many of the policies that affect high schools. To understand attempts to implement

> integration, it is necessary to analyze [both] the practices that are adopted [and] their policy context.

The conceptual framework of the study behind *Lessons* provides just such an analysis.

The essence of integration, according to *Lessons*, "is the organization of the best curricular and pedagogical practices of academic and vocational education into a single 'integrated' experience" to address the problems of a divided system. With that purpose as a foundation, *Lessons* outlines four themes of integration efforts:

1. Schools should develop richer, more structured curricula that enhance academic and generic schools.
2. Teaching should have more activity-based pedagogy that motivates students toward learning and provides them with a practical understanding of the world.
3. Teachers should collaborate and coordinate to foster the exchange of knowledge and improve communication between disciplines.
4. Schools should focus more attention on skills and knowledge needed by students to make the transition to a job or college education.

Analysis of vocational-academic integration at the eight school sites yielded a three-category classification of integration approaches. While the three categories are not intended by the researchers to represent the full range of possible approaches to integration, they do provide a useful paradigm for discussing and understanding vocational-academic integration (specifically, the objectives of integration) at the eight sites and in general. The three categories—(1) enhanced academics, (2) enhanced relevance, and (3) enhanced engagement—are defined and discussed briefly below:

- **Enhanced academics** – Schools that employed the enhanced academics approach implemented integration to increase the academic content of their vocational programs. This was done in response to a state mandate that also required content to be taught by academically certified teachers. The state provided few financial inducements or capacity-building funds.

- **Enhanced relevance** – Schools that employed the enhanced relevance approach implemented integration to provide students with practical experiences and education relevant to their future work in college and beyond. These programs focused on science and/or technology and served primarily college-bound students. In contrast to the enhanced academics schools, these schools were given freedom to innovate, as their programs were local, bottom-up efforts at school improvement financed in part by grant monies. The states undertook few actions to support integration at these sites.

- **Enhanced engagement** – Schools that employed the enhanced engagement approach implemented integration to increase the motivation and engagement of students. These schools served broad student bodies, and their administrators were concerned about both a lack of basic academic skills and poor motivation on the part of students. Reform at these schools did not focus on integration per se, but rather on restructuring the school organization to empower teachers to make curricular and pedagogical reforms. States generally undertook no supporting actions except for grants; local actions consisted of school reorganization to increase teachers' decision-making ability.

In *Lessons*, the authors discuss three types of reform that they encountered at the eight school sites they visited. The first, curricular and pedagogical reform, had schools attempting

> to reform curricula through increased course content . . . ; improved course alignment and content connections; and improved workplace-related skills and attitudes. They also attempted to implement pedagogical reforms, including practices such as hands-on problem-solving, cooperative or team-based activities, lessons requiring multiple forms of expression, and project work that draws on knowledge and skills from several domains.

The second type of reform, teacher collaboration reform, characterized programs that employed "the teaming of academic and vocational teachers, joint time together for teams, and new organizational structures that empowered teachers." A third type of

Table 1
Summary of Reform Efforts at the Three School Site Types

Reform Type	Enhanced Academic Sites	Enhanced Relevance Sites	Enhanced Engagement Sites
Curricular and Pedagogical	Focused on curricular changes and made few attempts to change pedagogy, as the latter was not part of the state mandate. To strengthen the academic content of their vocational programs the schools added applied academics (AA) courses, aligned AA with the vocational courses, and added employability courses. The state provided support in the form of commercially produced curricular materials.	Freed from outside regulations and not under a specific mandate, schools experimented with both curricular and pedagogical innovations, including AA materials, horizontal alignment of courses, four-year vertically aligned course sequences, increased hands-on learning activities, group projects, journals, and oral presentations. Pedagogical techniques, rather than employability courses, were used to improve workplace skills; these techniques included internships, senior projects, and career plans.	Made little progress in curricular or pedagogical reform per se. Most of the reform effort was directed toward creating a new organization for the schools that increased the authority of teachers, clearing the way for them to change curricula and pedagogy. One school adopted applied academics and placed more emphasis on hands-on activities and group learning. Both schools instituted career plans to improve workplace skills.
Teacher Collaboration	Supported their extensive curricular changes by hiring academic teachers, forming teacher teams, and providing joint time, including observation time, as indicated by state guidelines. Two sites provided more physical proximity between academic and vocational teachers.	Supported collaboration through teaming and workshops and also by hiring teachers with practical business or industry experience. Schools promoted collaboration, using a variety of methods, including joint instructional time, a school improvement steering committee, and a school-within-a-school arrangement that fostered teacher collaboration.	Fostered collaborative governance structures such as steering committees and staff senates. They did not use teams or joint time to build new curricula.
School Transition	Tended to follow state regulations in implementing new practices—for example, using competency-based tests, career passports, and business surveys. Their transition efforts tended to be add-ons to the school and not parts of the curriculum.	Made transition practices a part of the curriculum by introducing technology, career information, and career planning directly into it. They also experimented with portfolio assessment and mentorships or internships for students.	Emphasized organizational reforms: parent and business representation on school governing committees, a parental advisory committee, and business partnerships.

reform, school transition reform, "included the use of planning partners for the school (e.g., parents [and] business); transition-specific curricula [such as occupational clusters and articulation agreements with local colleges]; and credentials and certification." The three types of school sites studied employed these types of reforms to some extent. Use of these reforms by each type of school site is summarized in Table 1. In addition to their discussions of effective reform throughout, the authors of *Lessons* also provide valuable discussions on some of the common barriers to the integration of vocational and academic education with respect to each of the reform types.

Finally, while the literature review and field studies of *Lessons* provide detailed, objective information on the state of current efforts at integrating vocational and academic education, the authors of *Lessons* do draw some valuable (if tentative) conclusions about integration and outline some policy implications from their research. Itemized below, the conclusions and implications are given a comprehensive treatment in the final section of the report. These should serve as valuable guidelines for the intended audience of *Lessons*. The authors assert that integration

- can apply to all types of high schools,
- is best approached as a school improvement effort,
- takes years to implement,
- connects to systemic reforms,
- flourishes in a conducive regulatory environment,
- requires capacity-building investments,
- is promoted by inducements, and
- promotes the rethinking of education conventions.

Integrating Academic and Vocational Education: Lessons from Eight Early Innovators provides an excellent introduction to and overview of the issues faced by policymakers and educators working to integrate vocational and academic education. The document provides useful first-hand information from education practitioners that can make the complex process of vocational and academic integration less overwhelming.

Integrating Academic and Vocational Education: Lessons from Eight Early Innovators (MDS-287) was prepared by Susan Bodilly, Kimberly Ramsey, Cathleen Stasz, and Rick Eden from the NCRVE site at RAND. (For ordering information, see page 12.)

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Teachers' Roles in the Integration of Vocational and Academic Education
MDS-275 — B. J. Schmidt, C. R. Finch, S. L. Faulkner — $8.50

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ABOUT NCRVE

NCRVE is established under authorization of the Carl D. Perkins Vocational Education Act to engage in two vocational education-related activities: (1) applied research and development and (2) dissemination and training. Our mission is to address the goals of preparing individuals for substantial and rewarding employment and of acting as a catalyst for a shift to an economy dominated by a skilled and flexible workforce. NCRVE is a consortium of educational institutions led by the University of California at Berkeley's Graduate School of Education. This consortium also consists of the Teachers College at Columbia University, the University of Illinois, the University of Minnesota, RAND, Virginia Polytechnic Institute and State University, and the University of Wisconsin at Madison. In addition to its research and development agenda, NCRVE supports five dissemination and training programs: (1) dissemination; (2) professional development; (3) special populations; (4) planning, evaluation, and accountability; and (5) program development, curriculum, and instructional materials. This publication is part of our commitment to those on the front lines of vocational education, striving to create a new vision.

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Contents

A TALE OF TWO CITIES AND COLLABORATING FOR LEP STUDENTS.

Two Reports on the Education of ESL Students

"The population of persons with limited proficiency in speaking the English language (LEP) is a rapidly growing one in the United States, a population with great promise but often untapped energy and talent." The influx of immigrants to the U.S. during the 1980s was greater than at any time since the early part of this century. In fact, the U.S. Department of Labor projects that by the year 2000, an astounding 25% of new U.S. workers will be immigrants. Because the nation's economy is increasingly demanding more of its workforce and because immigrants are more likely to desire highly skilled, higher paying jobs than immigrants in the past, the need to educate and train non-native speakers effectively is becoming increasingly important. Much of that responsibility rests with vocational educators:

> The field of vocational education is charged with the responsibility of providing much-needed skills and expertise to the ever-changing labor market. . . . For its potential contribution to the labor force to be realized, however, the LEP population requires strong commitments on the part of both high school and postsecondary programs to the effective teaching of both vocational content and English language skills [and to] other support services.

It is this state of affairs—this challenge—from which two recent NCRVE publications get their impetus. Both *Preparing Adult Immigrants for Work: The Educational Response in Two Communities* by Kimberly Ramsey and Abby Robyn and *Collaboration for Instruction of LEP Students in Vocational Education* by Elizabeth Platt address the English language skills needs and vocational education needs of non-native speakers—the former focusing on adult immigrants and the postsecondary education systems of two large cities and the latter on the collaboration of vocational and English as a second language (ESL) teachers in mainstream vocational programs across the United States.

Immigrant Education in Two Large Cities

The two-year exploratory study informing *Preparing Adult Immigrants for Work: The Educational Response in Two Communities* examined the response of postsecondary education providers to the needs of adult immigrants in Miami and Los Angeles—two cities with large immigrant populations. The *Preparing Immigrants* report examines the policy context governing burgeoning immigration and education by describing the education and training system available to adult immigrants, characterizing school and community responses to immigrants, and discussing the adult immigrant education issues currently confronting the education and policy communities. The report draws on interviews with education policymakers and practitioners, community leaders, and others; a survey of adult immigrant students in the educational systems of the two cities; focus-group discussions with students; and various secondary data sources. The findings of the study provide insights into how and why educational services vary among schools and programs and insights into what impact those services have on adult immigrants pursuing education.

After outlining the "adult education challenge" posed by new immigration, providing background on the immigration-enhancing reforms of the 1980s, enumerating the characteristics of new immigrants, and describing the research approach of the project, *Preparing Immigrants* presents the results of the case studies conducted, following a city-to-city contrasting scheme. Table 1 summarizes some of the major—and very interesting—findings of the study in the areas of economics and demographics; local and state policies; and educational institutions' emphases and constraints, course offerings and support services, coordination, and capacity and resources.

Preparing Immigrants highlights an additional comparison, albeit a somewhat "single-sided" one, about the effect of the 1986 Immigration Reform and Control Act (IRCA), which granted amnesty to previously undocumented persons residing in the U.S.; required of applicants, among other things, "minimal understanding of ordinary English" and of civics; and allocated temporary funds to states for providing applicants with education, health services, and public assistance. The federal support provided to states under IRCA in the form of State Legalization Impact Assistance Grants (SLIAG) has had a significant impact on immigrant education in Los Angeles because of the

Table 1—Miami and Los Angeles: Comparisons and Contrasts

In Miami, . . .	In Miami *and* Los Angeles, . . .	In Los Angeles, . . .
	Economics	
• Service- and trade-based economy, narrower range of employment opportunity		• Diversified economy
	Demographics	
• Immigrant population consists largely of refugees from the Caribbean and Latin America who have arrived in successive waves since the 1950s. • First wave consisted of a wealthy, middle-class group of Cubans; subsequent waves consisted of less well-to-do, more geographically diversified immigrants.		• Most immigrants arrived illegally, tended to be lower-class, and did not establish a strong base for a service economy. • Most immigrants joined the legal populace as a single mass as a result of the 1986 Immigration Reform and Control Act (IRCA). (See the discussion about IRCA's impact immediately following this table.)
	State and Local Policies	
• Immigrant issues assume a high profile. • The state has refrained from imposing obstacles at the local level, allowing the city to develop an economic program linking education and training providers with employers. • Local government has helped to create a significant immigrant lobby for federal assistance.		• Few state policymakers view immigration as a salient concern. • Though represented by some influential groups, immigrants have little political input. City immigrant services are underfunded, and education policymakers are restricted by state funding limits. • The majority of federal assistance goes toward human services rather than education.
	Educational Institutions: Emphases and Constraints	
• A heavily bilingual approach to vocational instruction has been incorporated; few other programs have been targeted at adult immigrants.	• A wide range of existing institutions provide job training; however, for immigrants, the key to participation lies in the opportunity to receive ESL instruction in conjunction with vocational education. • The cities have attempted to modify the traditional focus of programs to address the issue of LEP immigrants, but programs are fairly traditional.	
	Educational Institutions: Course Offerings and Support Services	
• State community colleges require a high school diploma for entry, however, Miami community colleges maintain an extensive noncredit ESL remedial program. • Fees are about $920 per year. • The use of exit tests has reduced the number of students achieving degrees and certificates.	• Elementary ESL is provided as an unrestricted program in adult schools. • Administrators complain about a shortage of funds for counseling students about programs. • Immigrants receive little guidance in making the transition from ESL to vocational programs.	• State community colleges have an open-door policy requiring no high school diploma for entrance; however, many courses require students to take remedial English or ESL courses. • Students are expected to take lower-level ESL courses in adult schools. • Fees are low ($120 per year).

Table 1 (cont.)

In Miami, . . .	In Miami *and* Los Angeles, . . .	In Los Angeles, . . .
	Educational Institutions: Coordination	
• A stronger effort has been made to develop a more coherent delivery system, but "grandfather clauses" have weakened the effort's effectiveness.	• Adult education systems are uncoordinated with gaps in articulation between programs and course duplication.	
	Educational Institutions: Capacity and Resources	
• Administrators are satisfied with state funding mechanisms and have adequate flexibility in responding to the demands of changing enrollment. • About a third of community college students graduate, requiring three to four years to complete the two-year program.	• Community college vocational programs report having adequate capacity.	• The state's funding mechanism limits expansion of the adult school system (at 2.5%), despite a 40,000-student waiting list. • Community colleges have been unable to expand ESL and remedial offerings. • A quarter of community college students graduate, requiring an average of 4.2 years to complete the program.

city's dependence on this funding (immigrant amnesty education had only a small impact on Miami, which depends on more stable sources of funding). On the one hand, however, only 20% of California's SLIAG funds went to education in general, including ESL programs (the bulk of funds going to health services and public assistance); in addition, "vocational education and job training [were] conspicuously absent from the list of SLIAG-reimbursable programs" altogether. On the other hand, the authors of *Preparing Immigrants*—writing before the scheduled discontinuation of SLIAG funding in 1992—note that

> While eventually almost one million people attended amnesty classes in California, there was little encouragement . . . to build language fluency in the population. Bureaucratic kinks . . . impeded activity by CBOs [community-based organizations]. . . . Community colleges . . . entered the process slowly [for a variety of reasons] . . . [and offered] enlarged classes for amnesty students. During the period from 1987 to 1992, the state ESL/civics adult enrollment was doubled using SLIAG funds. When [SLIAG] funds end in 1992, the state estimates the system will be able to absorb only 15 percent of the students currently supported with [the] funds.

Because Miami—unlike Los Angeles—has depended not on SLIAG funding but on more stable sources of funding for immigrant programs, that city is able to maintain a relatively consistent level of immigrant-support programs.

While *Preparing Immigrants* goes to great lengths to describe the range of adult immigrant services and the conditions under which they exist, the document ultimately highlights logistics and policy issues confronting immigrant education and offers a framework for rethinking relevant institutional goals and missions for education. Informed in part by the survey of and the focus groups with adult immigrant students, the researchers discovered that at least three significant service-delivery/program enhancements:

- **Program flexibility**–Because adult immigrants who seek job training tend to be older, working students, there was an expressed need for evening courses and more flexible class scheduling.
- **Integrated language and vocational education**–Students recommended language training directly associated with a job.
- **More in-class practice and individual attention**–The large ESL classes prevalent in adult education make it difficult to offer quality learning opportunities.

The broader policy issues addressed by *Preparing Immigrants* include, first, the demographic challenge alluded to earlier in this review. Ramsey and Robyn

note not only the numbers of immigrants whose concerns need to be addressed but further that immigrants' educational needs compete with those of other disadvantaged groups and that education itself competes with other national priorities—competition that threatens to limit the opportunities of immigrants and, therefore, may ultimately threaten "our national ability to compete and prosper." Other broad policy issues include the following:

- **Integrated ESL and vocational education**–Central to this issue is treating English as a job skill rather than an academic subject or a prerequisite for job training.

- **Expanded funding**–Current funding strategies reflect the low priority of adult education. A central problem in this area results from the fact that immigrants arrive as a result of federal policy but demand services from local communities and states.

- **Information collection for planning**–Rethinking immigrant issues and planning reforms will require far more accurate information than is now available in such areas as course-taking behavior, tracking of subsequent education, job placement and retention rates, and institutional costs.

In framing these three issues, Ramsey and Robyn make the following observations:

> Educational institutions are struggling to mesh their traditional goals and missions with the needs of a changing population. However, these ad-hoc adjustments too often result in duplication of services, conflicting goals, poor coordination, and a breakdown of curricular sequence. A fresh approach is needed. Systemwide goals need to be re-examined and a new mission articulated. The result should be a well-coordinated system that addresses language education and vocational training needs at all levels and provides smooth transitions between institutions.

It is forward-looking ideas like these and the descriptions of the environment in which immigrant education takes place in Miami and Los Angeles that should help educators and policymakers better understand the ways in which program decisions and institutional traditions affect immigrant learning opportunities, and make *Preparing Adult Immigrants for Work* a noteworthy document.

ESL and Vocational Teacher Collaboration

Collaboration for Instruction of LEP Students in Vocational Education by Elizabeth Platt is the result of a study that sampled the experience of LEP students in mainstream programs by studying three secondary and three postsecondary sites from across the country. Why should those involved in vocational education be concerned with LEP students? Numbers—the "rapidly growing and diversified number of youths and adults in the United States with limited English ability" alluded to in *Preparing Adult Immigrants for Work*—provide a significant part of the answer. Mission is another very important part. As stated earlier, vocational education is responsibile for providing much needed skills and expertise to the ever-changing labor market. Knowledge of effective instructional techniques for [the LEP] population becomes necessary for more and more mainstream content teachers. This is particularly true in vocational education if the field expects to contribute to the changing needs of the American workforce.

While *Preparing Immigrants* provided a view of "the big picture," *Collaboration* goes into the classroom in an effort to assist practitioners. The dual purpose of the *Collaboration* project was to study (1) collaboration between vocational and ESL teachers on behalf of LEP students and (2) the impact of that collaboration on

The LEP population requires strong commitments from educators

instruction. "To fully realize the potential of [LEP] students," the document contends, "some combination of faculty collaboration, school resource reallocation, and staff development is needed."

A literature review and pilot study done prior to site visits and interviews with vocational and ESL faculty and staff established four significant issues to be addressed during the interview, observation, and questionnaire portions of the study: (1) history of the LEP program and perception of problems in LEP instruction at each site, (2) locus of power and responsibility for maintaining the LEP program at each site, (3) nature of information and resource exchange among program participants, and (4) commitment to LEP students and program outcomes.

Effectiveness of LEP programs, it was decided, would be judged in terms of both good vocational education practice and good language development opportunities.

As a result of their activities, project researchers found that two types of collaboration between vocational and ESL or VESL (vocational English as a second language) teachers exist, characterized by the role of the ESL/VESL teacher in the collaboration:

1. **Support Role**
   When ESL teachers played supportive roles, they often did so with skill and patience. Their vocational colleagues respected them and found that students benefited from their support. Generally, however, VESL teachers' effectiveness was mediated by lack of technical expertise, limited access to the hands-on environment, and removal of the vocational vocabulary from its real world

Collaboration is effective when teachers share their expertise *outside* the classroom

   context. Ability to achieve language teaching objectives in vocational classrooms was hampered by noise, lack of time, inadequate space, and other less-than-optimal conditions. Most importantly, ESL teachers' long-term language teaching objectives were subsumed by their need to handle communication breakdowns or to prepare students for tests, thus requiring content rather than language emphasis. Finally, although experienced vocational teachers in these working relationships often made their own language comprehensible, the presence of a VESL support person appeared to have little impact on vocational instruction, since few activities enhancing language comprehension and production were observed.

2. **Expert Role**
   When ESL specialists shared their expertise with vocational teachers, the resulting impact on instruction was considerable. At one site a curriculum development specialist had worked with vocational teachers to produce user-friendly curricula. The process of creating curricula helped vocational teachers analyze and systematize their technical knowledge. As a byproduct of the collaborative activity, they became more aware of instructional language and began making adjustments. At another site, an ESL consultant taught vocational teachers information about language, culture, language teaching techniques, and curriculum development in a staff development course. The vocational teachers subsequently taught courses in technical vocabulary in their own fields. The teachers were observed using a number of effective language elicitation activities. Students were not only learning terms but using them in typical vocational classroom discourse. Students' evaluations of these courses were overwhelmingly positive, reporting significant gains in confidence and ability to comprehend and use English.

The existence of ESL support or collaboration, then, "was neither a necessary nor sufficient condition for quality instruction" of LEP students by vocational teachers, the researchers found to their surprise; it was instead "the quality of the knowledge about language learning and language use that vocational teachers employed in the classroom" that made the difference in quality of instruction. Vocational classrooms can be ideal natural settings for English language development when vocational instructors take full advantage of opportunities for language learning by eliciting meaningful discussion with students about vocational education content. Collaboration is more effective, ironically, when vocational and ESL/VESL teachers share their expertise about good vocational and language teaching *outside* the classroom. When vocational teachers' staff development activities are effective, the researchers suggest, vocational teachers need less in-class VESL support and collaborative participation, allowing them to concentrate their efforts on what might be considered more vocationally focused vocational language development. Specifically—fortunately for practitioners, *very* specifically—the author of *Collaboration* offers the following suggestions for both vocational and ESL instructors:

- Vocational teachers can learn ways of enhancing comprehension and eliciting oral language use from students by providing opportunities for students to develop vocabulary through use of flashcards, illustrations, and labels; describe objects and materials; explain processes, procedures, and functions; give and receive directions; ask and answer questions; troubleshoot problems encountered in the work; and participate in the discourse of the vocational classroom.

- ESL teachers who support various vocational programs despite lack of content knowledge can

nonetheless provide valuable language teaching when they help make comprehensible the vocational classroom language using video- or audiotaped portions of class lectures to locate sources of difficulty; practice vocabulary by having students explain concepts, functions, or procedures, not simply recite words and definitions; work with students in the vocational classroom if appropriate and conducive to learning; help students locate and comprehend information from printed materials or visual displays; and assign writing tasks similar to those required in the occupation for which the student is being trained.

It is the document's surprising—and therefore unprejudiced—conclusions and its specific recommendations that make *Collaboration for Instruction of LEP Students in Vocational Education* a valuable resource for the vocational-ESL practitioner.

Additional Resources

The NCRVE Office of Special Populations (formerly NCRVE's Technical Assistance for Special Populations Program [TASPP]) at the University of Illinois has compiled two LEP resource guides. The two guides—*Students with Limited English Proficiency: Selected Resources for Vocational Preparation* and *Students with Limited English Proficiency: Selected Resources for Vocational Preparation, Volume 2*—are designed to provide local and state administrators, special needs educators, researchers, policymakers, and others with information about developing and improving services for youth and adults. The guides are essentially categorized annotated bibliographies with information about obtaining each resource listed. Also included are lists of national LEP contact persons and organizations as well as title and author indexes.

Preparing Adult Immigrants for Work: The Educational Response in Two Communities (MDS-072) was prepared by Kimberly Ramsey and Abby Robyn from the NCRVE site at RAND. (For ordering information, see page 16.)

Collaboration for Instruction of LEP Students in Vocational Education (MDS-157) was prepared by Elizabeth Platt through the NCRVE site at the University of Illinois. (For ordering information, see page 16.)

Students with Limited English Proficiency: Selected Resources for Vocational Preparation (MDS-109) and *Students with Limited English Proficiency: Selected Resources for Vocational Preparation, Volume 2* (MDS-432) were prepared by the Technical Assistance for Special Populations Program (TASPP) staff at the University of Illinois. (For ordering information, see page 16.)

PG RATING NOT REQUIRED
Parental Guidance Is an Inherent Part of Mexican-American Life

A recent NCRVE report focusing on family influence on Mexican-American students in Texas—*The Role of Family in the Educational and Occupational Decisions Made by Mexican-American Students* by Kermeta "Kay" Clayton, Gonzalo Garcia, Jr., Rachel Underwood, Phillip McEndree, and Richard Shepherd—may prove to have implications beyond the borders of Texas.

"Hispanics comprise the fastest growing minority group in the United States; with a growth rate of five times the national average (National Council of La Raza, 1992), they are expected to make up the largest ethnic minority in the continental U.S. shortly after the beginning of the twenty-first century (Vega, 1990). . . . Between 1980 and 1990, the Hispanic population in the U.S. grew by fifty-three percent (National Council of La Raza, 1992), representing a total population of over twenty-two million (U.S. Bureau of the Census, 1990)." At the same time that the Hispanic population grows, however, Hispanics face serious socioeconomic problems, with a contributing factor being low educational attainment. Approximately 50% of Hispanics do not graduate from high school, thereby limiting their career choices. "Dropouts," the report points out, "typically do not receive the education and training that are required in today's labor market" and they "suffer lifelong economic disadvantages." Clayton and company remind readers of the emphasis put on the relationship between education and economic success by the Grant Foundation's (1988) *The Forgotten Half*:

> The more years of formal education and training completed, the greater one's employability and

annual income. Considered purely as an economic investment, education and training pay off handsomely for both the individual and the society. . . . Education and training thus remain the Forgotten Half's most fundamental and reliable pathways to success.

There is a common misconception that Hispanic parents are not concerned about their children's education; this misconception, Garza-Lubek and Chavkin (1988) suggest, may be fueled by the exceedingly high Hispanic dropout rate. On the contrary, the literature review done in preparing *The Role of Family* study suggests that Hispanic families play a significant role in the decisions made by their children. In fact, "familism" (either face-to-face interaction or supporting behavior) is "more typical . . . of Hispanic families than of non-Hispanic white families," according to Vega (1990). "Family is the dominant source of advice and help in all generations." It is likely, *The Role of Family* therefore contends, that "family values and attitudes play a significant role in the educational and occupational decisions made by Hispanic students." With this evidence, to say that Hispanic parents are not concerned about their children's education is at best an understatement or an oversimplification. Instead, the National Council of La Raza (1992) identified factors such as segregated inner-city schools with limited resources, lack of familial resources, and noncollege/ nonwork preparatory education as major contributors to Hispanic undereducation.

"The clear link between educational attainment and economic success, coupled with the high value placed on the concept of family in the Mexican-American culture," according to *The Role of Family*, "make it imperative to examine the role of the family in the educational and occupational decisions made by Mexican-American students." *The Role of Family* report makes that examination. Specifically, it addresses the following questions:

- To what extent do Mexican-American families influence students' educational and occupational decisions?
- How do Mexican-American students perceive the influence of their families on their educational and occupational decisions?
- What other factors influence the educational and occupational plans and decisions made by Mexican-American students?
- Are there gender differences among Mexican-American students on selected educational and occupational variables?

After giving some background, *The Role of Family* presents the result of a literature review, divided into four categories, outlined briefly in Table 1. In summary,

> Mexican Americans lag behind other population groups in educational attainment, which impacts on their socioeconomic status. . . . With the present dropout rate at a high level, the assumption can be made that we are facing generations of under-educated Mexican Americans. Programs targeting the Hispanic population have proven to achieve results (National Council of La Raza, 1992). As Miranda and Quiroz (1990) state, "Even in the face of growing poverty, reduced real earnings and intense family pressures that have characterized the 1980s, Hispanic Americans continued to contribute to the social and economic strength of the nation. Clearly, Hispanics are a 'good bet' for future public policy investments."

The study underlying *The Role of Family* was conducted to examine the role of family in educational and occupational decisions made by Mexican-American students in a variety of Texas school districts and community colleges. Questionnaires were administered to over two thousand students and their parents. The parents' version of the questionnaire included items designed chiefly to determine their perceived influence and the influence of other family members on the educational and occupational decisions made by their children.

Upon reviewing the literature and analyzing the results of the study they conducted, the researchers came to conclusions that led them to the following implications and recommendations:

- It is critical for educators to capitalize on the educational aspirations that Mexican-American parents have for their children and the strong role they play in their children's educational and occupational decisions. Educators at all levels must take advantage of the strong influence of Mexican-American parents by involving them in the education of their children as much as possible.
- Educators have an obligation to work with parents to ensure that parents have accurate and adequate information which will in turn enable them to help

Table 1—Selected Results of *The Role of Family* Literature Review

1. Hispanic Demographic Trends

Trends	*Factors Contributing to Trends*
Trend 1: Stagnating income levels and continued high poverty	• Concentration in low-wage, unstable jobs
Trend 2: High proportions of impoverished children	• Undereducation
Trend 3: No improvement for Hispanic woman-maintained households	• Demographic characteristics
Trend 4: Deepening hardship among married-couple families	• Immigration
Trend 5: Widening income disparity	• Cutbacks in federal programs
Trend 6: Still significant, still unequal benefits from education	• Discrimination
Trend 7: Earnings decreasing	

2. The Hispanic Family

- Hispanic families are influential "in encouraging youth to continue in school, for family role models and connections can increase a young person's opportunities in the job market" (Fleming, 1982).
- The level of parent education reflects more on school expectations than on career aspirations (Fleming, 1982)
- Family role expectations may also be a contributing factor in keeping Mexican-American women from achieving their full potential because success in family roles is not seen to be related to success in educational achievement. Since the male is seen as the provider in the family, the Mexican-American female is not encouraged to pursue academic or professional success (Coker, 1984).
- "Hispanic parents are staunch supporters of solid English instruction. What they do object to are instructional approaches to learning English that deprive their children of Spanish" (Valdivieso, 1986).
- "Far from rejecting their parents, [Hispanic] adolescents rely on them for matters involving future life goals and careers." Parents appear to be a much stronger influence than best friends in determining adolescents' educational aspirations (Davies & Kandel, 1981).

3. The Hispanic Student

- Hispanics continue to be the least educated major U.S. subgroup (McKay, 1986).
- Dropout rates continue to be highest among Hispanics (McKay, 1986).
- "Problems such as difficulty with the English language, differences in customs, and lack of understanding between students and teachers persist as serious barriers to learning by Mexican Americans" (Coker, 1984).
- A strong link exists between the Mexican-American female's attitude towards school and her cultural values. This link will motivate her to either continue toward higher education or discourage her to pursue academic achievements (Coker, 1984).
- "The individual tries to coordinate self-image and the image of the typical occupational incumbent"; but there is low representation of both women and minorities in the science field, for example (McCorquodale, 1984).
- Positive attitudes toward Hispanic students are not always present in the educational field, which may contribute to the high Hispanic dropout rate (Crocker, 1982).
- Other factors that impact on the success of the Mexican Americans are inequitable school finance, the paucity of Latino teachers and role models, ineffective bilingual education programs, and Latino underrepresentation in successful support programs.

4. Educational Achievement and Occupational Aspirations

- The status of the Hispanic in the workforce can be attributed to three major factors: (1) lack of English proficiency, (2) low level of education, and (3) the discrimination resulting from these two factors (Warren, 1984).
- Inadequate language services contribute to low educational attainment among Hispanics (McKay, 1986).
- "Students will sacrifice interest in a field of work to maintain sex type and prestige regardless of their grade level" (McNulty & Borgen, 1988)
- Lower-paid, lower-skilled jobs are held by more Hispanics and especially by Hispanic women than other ethnic groups (McKay, 1986).
- Hispanics are only about half as likely as non-Hispanics to hold managerial or professional jobs and instead work as operatives (McKay, 1986).
- The number of Hispanic women in the labor force continues to increase at a rate faster than that of other women (Coker, 1984).

their children achieve their aspirations. It is important also that schools seek to hire more Mexican-American teachers and administrators who can motivate students to continue their education by serving as role models.

- Schools must be staffed with administrators, counselors, teachers, and admissions personnel who are bilingual and who exhibit sensitivity to and appreciation for the Mexican-American culture.

- Because financial aid is an important factor in a Mexican-American student's decision to continue his or her education, programs for parents and students must provide specific information on costs involved, financial aid, and the potential for student employment. This information should be produced in formats other than just print media and should be available in both English and Spanish.

- It is essential that schools and colleges develop outreach programs that are directed at assisting parents. These programs should be designed so that they can be taken or sent to parents rather than expecting the parents to come to the institution to take advantage of them.

- Unless financial aid from sources other than parents is readily available and easily accessed, Mexican-American students will probably continue to have high aspirations but low educational attainment. Tangible assistance in the form of financial aid appears to be a critical factor for the students in this study.

Related to this last recommendation, the authors of *The Role of Family* draw one final implication and make one final recommendation that allude to the importance of their research in general:

> Because the workforce needs of Texas and the nation as a whole demand a world class workforce, we can ill afford to ignore the needs of this rapidly growing segment of our population—one that has traditionally been undereducated and underutilized. Because of the growth and urban concentration of Mexican Americans [especially in Texas], it is incumbent upon us not only to encourage Mexican-American students to aspire to higher levels of education, but it is essential that policymakers view an increase in student financial aid for education as a wise investment in our future.

Familism is more typical of Hispanic families than of non-Hispanic white families

Progress is being made, the authors report, but there is still much to be done.

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The Role of Family in the Educational and Occupational Decisions Made by Mexican-American Students (MDS-412) was prepared by Kermeta "Kay" Clayton, Gonzalo Garcia, Jr., Rachel Underwood, and Phillip McEndree through the NCRVE site at the University of California at Berkeley. (For ordering information, see page 16.)

"SHOT FULL OF HOLES"
The Relationship of Literacy Skills to Vocational Education and Work

Another recent NCRVE report, *"Their Chances? Slim and None"* by Glynda Hull, responds to an important issue in vocational programs of many community colleges: while students often have difficulty with the literacy requirements of community college programs or of the workplace, vocational programs are not set up to deal with basic skills, which traditionally have not come under the auspices of vocational training. *Their Chances?* calls attention to "ways in which there can be a dialogue between vocational educators and the providers of training in basic skills and academic literacies, a dialogue that would ease the transition that students must make between basic skills programs, vocational programs, and employment or further academic training."

Hull draws her conclusions from a three-year case study of a community college banking and finance vocational program conducted by Hull and Jenny Cook-Gumperz. This case study explored in detail one possible way for adults to re-educate themselves at a community college and prepare for re-entry into the workforce with additional skills and experience, through basic skills to certification programs. The case study followed students—mostly African-American women desiring to improve their skills and get better jobs or single mothers wanting to get off public assistance—from the time they entered the program through the time they spent at jobs and beyond. Not unusually, the banking and finance program was not set up to address basic skills.

The focus of the *Their Chances?* study is an at-risk segment of the population—noncollege-educated youth and other re-entry and minority adults—because it has been claimed that ours is an age of information

> in which ever more sophisticated literacy skills become essential for people to manage not only new technologies but their own everyday lives. Against the backdrop of rapid technological change, the current fear is that too many people—displaced workers, high school dropouts, many minorities and non-native speakers—are hindered by insufficient literacy skills.

The project, known as "Preparing a Literate Workforce," was designed to address questions such as

- What roles do literacy skills play in the work world, and how essential are they to success in which jobs?
- How applicable is college-based learning to work contexts?
- How does learning on the job differ from college-based learning?
- What kinds of literacy curricula are best suited for at-risk adults in vocational programs?

In general, the project sought to understand the relationship between the literacy skills these adults are increasingly expected to have or acquire, on the one hand, and vocational education and work, on the other.

"I situate this report," Hull begins,

> in the current furor over what employers want and America needs in its workforce. Some believe America's workers are seriously deficient, possessing neither "basic" skills in reading, writing, and math nor those "advanced" skills

> thought to be required in reorganized and technologically sophisticated workplaces, skills like "problem-solving" and "judgment" and what Zuboff . . . calls "intellective" as opposed to "sentient" capabilities. On the heels of such concern is increasing pressure on educators, including vocational teachers and providers of basic skills and remedial training, to create relevant and accountable programs and curricula. Contrasting this position are the views of critical and social theorists who find the link that many assume between a poor economy and deficient workers to be weak, unconvincing, and harmful. According to this viewpoint, workers need to cultivate, not just basic skills or job-related training, but what we might call "critical" skills—the ability to reflect on, assess, and ultimately alter society and one's place in it.

After reviewing these positions, Hull describes the project's research on students in the vocational program in banking and finance and presents the perspectives of teacher, employer, and student.

Though students enroll in the program for various reasons, an overwhelming majority of students enroll because they have heard that with the instructor's assistance, they will get jobs. Evidence, including the instructor's accounting of his primary roles, shows that the program serves students who already know most of what they need to know to get entry-level work in a bank and who need some "polishing" and "confidence-building" to actually obtain employment; instruction is not linked to academic preparation. A few students "cycle out" of the program when they and the instructor realize that the student cannot read well enough to pass a "proof-operation test" required as part of banks' application process. Completers stay in the program for anywhere from three weeks to several cycles of the semester-long sequence—which consists of fifteen "modules," each of which consists of lecture and discussion and related labs "charged with immediacy

Critical skills need to be more than an irrelevant luxury when people are desperate for jobs

and real-life applicability," and extensive ten-key practice. The program includes no instruction on reading, writing, or math—no "remedial" basics skills

In addition to playing the role of "polisher" and "confidence builder" and teaching job-specific skills, the program's instructor, "Mr. Parker," also teaches what "might be called 'corporate literacy'—how to act, carry oneself, and speak in ways appropriate to the world of finance." Parker sees such socialization as a means to an end—getting students off welfare, out of poverty, and into work with some possibility of advancement. To a large extent, local bank personnel managers shared Parker's attitude about socialization and available opportunities and, as members of the program's advisory board, defended Parker's structuring of the banking and finance program. At the same time, employers seemed to take for granted the need to read at a "basic" level on the job, expecting employees to read and understand thick manuals and complicated proof-operation test information. The entry-level proof-operator work that completers generally obtain begins after normal bank hours; affords few benefits and inconsistent work-day schedules; and is repetitive and fast-paced, requiring a high degree of accuracy.

In light of what the study uncovers, Hull argues that "proponents of basic skills surely miss the mark, given that such capabilities did not have much to do with whether workers were able to attain, perform, or keep their jobs." What does this study of lived experience have to say about the relationship among skills, schooling, and work? "Most strikingly," says Hull, "I found no simple, one-to-one correlation between . . . being skilled or able to accomplish work [and] doing well in training [and] getting a job," —recalling that, on the one hand, students often had reading, writing, and communication difficulties and that, on the other hand, students "knew most of what they needed before they came into the program" for polishing and often got jobs. As for keeping a job, "little conventional literacy was needed at all. People read and punched in numbers, and they checked off boxes on forms. The only skills needed on the job (besides a tolerance for stress) were those capabilities for operating [a] proof machine." At the same time, for a variety of reasons, being able to do proof-operator's work, "was not sufficient for staying employed. Put another way, among the group . . . studied, many of the skilled workers, those who were fast and accurate at proofing, lost their jobs right along with the very few workers who were less skilled, who weren't sufficiently fast or accurate."

Indeed, in Hull's view, "the whole fabric of the skills argument, particularly the unquestioned connection between the acquisition and possession of basic skills and the opportunity to display and use them for advancement, is shot full of holes":

> The current popular rhetoric which attempts to blame economic difficulties on unskilled labor, and then attempts to remedy the problem with literacy programs and ever proliferating sets of workbooks and computer-aided instruction on basic skills, simply misses the mark. No, it misses the whole target. Something is curiously and deeply wrong here. People enter a training program which emphasizes skills that won't be used on the job, are given an employment test that requires skills that have questionable relevance to work, are hired despite doing poorly on the test and the interview, and lose their jobs even when they are competent at doing the work. The problem is much more complicated than a deficit in skills and its solution much more difficult than devising a new skills-building program or providing workplace literacy instruction.

There are problems with the banking and finance program, Hull notes; there are things that can be improved. They have less to do with basic skills, however, than with ways to increase job retention and to impress upon students ideas like the need for arriving at work on time.

Hull goes on to explain what she thinks is "the real problem, the larger issues." She tries to account for "how and why African American women from the Banking and Finance Program were encouraged and helped to take low-level jobs in local banks that most would quickly lose." She attempts "to investigate how students, teachers, and employers in [the] particular context [of the study] together constructed a career path and a work identity for students in the program, paying attention to the interaction of race, class, and gender in this process. As Carnoy and Levin (1985) have usefully argued, both democratizing and reproductive forces are always present in our society." Hull claims to illustrate "the ongoing struggle between these forces, and [shows] in this instance reproductive forces winning out." People and institutions at various levels interact to "oppose, support, and ultimately . . . sustain"—that is, reproduce—"the status quo." "Their chances? Slim and none," said a teacher about the prospects of most young people in East Oakland, California. "The same turned out to be true, unfortunately, for most of the students in my study," adds Hull.

Hull, having suggested that the problem is not basic skills pure and simple, examines arguments for the centrality of critical skills in education in general, and on vocational education, specifically:

> Although I am sometimes dissatisfied with the level of argument exemplified in critical theory, which can maintain an Olympian distance from the everyday concerns of the people whose interests it hopes to serve, I do see the need for an approach to literacy and education which foregrounds the development of critical capabilities [i.e., the ability to reflect on, assess, and alter society and one's place in it]. However, I believe that we must also take into account that people have to be able to survive, to satisfy fundamental human needs, even to get ahead and prosper. Critical skills need to offer and to be offered as more than an irrelevant luxury when people are desperate for jobs. We need as well to find ways to honor adult students' aspirations and their own definitions of success, understanding that their perspectives may differ, indeed, have every right to differ, from our own.

Hull concludes her report with a summary and some implications for vocational education and work. All of her recommendations are treated in detail in the report

Proponents of basic skills surely miss the mark

itself. First, briefly, Hull's recommendations for short-term improvements in vocational programs similar to the one in this study:

- Match job placement to students' aspirations.
- Attend to job retention as well as job placement.
- Broaden narrow skills training.
- Update available technologies.
- Integrate literacy instruction into the vocational program.
- Coordinate vocational and academic offerings.
- Extend short-term programs.

Equally important are Hull's recommendations for reform at work:

- Invest in long-term employment.
- Decentralize production tasks and diversify front-line workers' responsibilities.
- Provide childcare services.

- Create opportunities for full-time employment.
- Create career paths and make them visible.
- Admit educators and researchers to the work sites.

The ethnological richness of Hull's study, the tone of personal conviction with which she supports her contentions, and the not-oversimplified but compelling and penetrating conclusions that Hull draws make *"Their Chances? Slim and None"* worthwhile reading for *any* vocational educator.

Sources Cited

Carnoy, M., & Levin, H. (1985). *Schooling and work in the democratic state.* Stanford, CA: Stanford University Press.

"Their Chances? Slim and None": An Ethnographic Account of the Experience of Low-Income People of Color in a Vocational Program and at Work (MDS-155) was prepared by Glynda Hull from the NCRVE site at the University of California at Berkeley. (For ordering information, see page 16.)

IMPROVING SPECIAL NEEDS PROGRAMS
A Preliminary Framework

Since 1963, federal vocational education legislation has authorized funding of programs and support services designed to enhance the participation of special populations students in secondary and postsecondary vocational education programs. Yet, few programming approaches have been carefully examined or successfully evaluated. Of the studies that have been undertaken, most have been descriptive—seldom focusing on the relationship between program components and student outcomes—and have focused on only one group of students—for example, the economically disadvantaged or the disabled. "Thus," the brief NCRVE report *Effective Vocational Education for Students with Special Needs: A Framework* contends, "much of what is known about effective programs and services has emerged from extensive local development and innovation."

In response to this "evaluation" void, to the lack of widespread and effective local programs for special needs students, to state and federal legislative mandates, and to the growth in the activities of special needs professionals, the authors of *Framework*, L. Allen Phelps and Thomas R. Wermuth, undertook to develop a preliminary framework "that could be used to improve policy and practice as well as to focus future research and development." The result is a series of matrices indicating components of programs for students with special needs that were cited—in formal research and evaluation studies and, subsequently, in the reports of state departments of education and boards of vocational education, federal legislation, and recent professional textbooks—as valid indicators of effective programs. The twenty components were grouped by the researchers into five broad categories: program administration; curriculum and instruction; comprehensive support services; formalized articulation and communication; and occupational experience, placement, and follow-up. Specifically, *Framework* concludes, the twenty components—of which the following are examples—are the means to an effective special populations vocational education program:

Program Administration

- *Administrative Leadership and Support*
  Both institution and program administrators act in ways that reflect concerns for enrollment, completion, and appropriate placement for special needs students within the overall mission of the vocational-technical education programs.

- *Formative Program Evaluation*
  Procedures for evaluating the performance of the program are clearly specified. Special needs students, parents, and employers have opportunities to assess the quality of programs and services.

- *Staff Development*
  Provisions exist for a variety of individual and department-level professional development programs. These provisions assure that staff have up-to-date knowledge regarding learning styles, business and industry standards, and effective techniques for teaching and counseling special students.

Curriculum and Instruction

- *Integration of Vocational and Academic Curricula*
  Potential integration indicators include team teaching, use of applied academics courses/modules

in technical courses, and the development of new occupational courses emphasizing general and basic skills.

- *Cooperative Learning Experiences*
  Students have opportunities to participate in structured, small group learning situations in classrooms, labs, and/or workplaces.

Comprehensive Support Services

- *Assessment of Individual Career Interests and Abilities*
  Comprehensive approaches are used to assess students' career interests, aptitudes, and abilities. Teacher-developed and commercially purchased assessment forms and materials are used.

Formalized Articulation and Communication

- *Family/Parental Involvement and Support*
  Parents are involved in general program planning and development through advisory committees and task forces. Parents are also directly involved in planning and evaluating the progress of a career-related instruction provided for their son/daughter

- *Formalized Transition Planning*
  Program participants are provided with formalized transition planning. Transition is defined as the movement of a special population student from one level or program to another (e.g., from secondary school setting to postsecondary vocational education program, a community-based rehabilitation program, and/or work). Indicators of transition planning include consultation with vocational rehabilitation and other nonschool agencies, frequent contact with representatives of the educational settings to which students will move, consideration of the full range of options for further education or work, and involvement of parents and significant others in the plan development.

- *Intra- and Interagency Collaboration*
  Effective intra-agency cooperative arrangements include indication of the departments and programs within the educational institution which provide support services, resources, and general assistance to either the special population students or the staff of the vocational special needs program; the coordination activities conducted; and the benefits of this collaboration. Interagency cooperative arrangements that are effective specify the external agencies and organizations (the contact personnel) which provide assistance to program staff and/or participants; detail the services and resources provided; and outline the benefits of these collaborative efforts.

Occupational Experience, Placement, and Follow-Up

- *Follow-Up (graduates and nongraduates)*
  Program staff regularly collect follow-up information to describe the postprogram performance of students. The information is used to improve the program and services.

For state departments of education conducting searches for effective programs, policymakers interested in

Few special populations programming approaches have been carefully examined or successfully evaluated

programmatic issues associated with effective vocational education programs, and researchers interested in studying the effectiveness of various special needs vocational curricula and instructional strategies, the framework outlined in *Effective Vocational Education for Students with Special Needs* should prove a valuable initial step in filling a significant void in the vocational education field. The results of this preliminary study suggest that, overall, the framework has a potentially broad utility.

Effective Vocational Education for Students with Special Needs: A Framework (MDS-112) was prepared by L. Allen Phelps and Thomas R. Wermuth through the NCRVE site at the University of Wisconsin–Madison. (For ordering information, see page 16.)

ORDERING INFORMATION

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