

Innovative Professional Development Opportunities: Key Elements for Successful Development

Victor Hernandez-Gantes

Reform and innovation in complex systems such as schools requires a substantial investment in professional development. Ensuring that school-to-work systems are accessible to all students in the nation's schools is, first and foremost, a problem of curriculum development and instructional improvement. We need highly skilled and caring educators to expand and enhance curricula, teaching, counseling, and assessment programs based on rigorous standards and developments in America's workplaces. But how can we connect workplace learning and professional development opportunities? What kind of opportunities can provide enriching experiences for teachers? What are the benefits of those opportunities? Are there any promising professional development practices addressing these questions? What can we learn from them?

In January 1997, the National Center's Teacher Education Initiative launched a national search for innovative professional development programs and practices. The Initiative sought to identify programs that were striving to address one or more of the key purposes of the school-to-work educational reforms: enriching the academic curriculum with real-world examples of technologies, creating new career pathways for students' career development and transition, developing active and team-oriented teaching strategies focused on authentic adult achievement, and contributing to improved student learning and successful transition from school to work and/or postsecondary education.

In collaboration with the Steering Team for the Teacher Learning in the Community and Workplace project, staff reviewed seventy-five nominations, searching for those that were most promising.

Primarily we were seeking programs that focus on experiential learning for preservice and/or inservice educators. For example:

- Professional development schools/ centers that build on collaborative efforts between schools, districts, universities, and local business organizations.
- School-to-work leadership academies or programs sponsored by local businesses to assist educational leaders in improving organizational development and management skills.
- Instructor-led action research networks through which teachers collaborate to examine teaching, curriculum, and assessment strategies in local school-to-work systems.
- State agency or university-sponsored internship programs in which teachers and counselors acquire hands-on experiences in modern workplaces, enabling them to revise curriculum materials, develop new approaches to teamwork and problem-solving, and make other informed changes in teaching, counseling practices, and learning experiences.

After reviewing evidence describing implementation and/or outcomes, we made follow-up phone calls to 15 programs soliciting more information about key features of their program and its evaluation. The follow-up review helped identify five programs where the workplace learning focus was most evident: The

Jackson-Hillsdale School-to-Work Initiative, in Jackson and Hillsdale Counties, Michigan; The Business Education Compact, in Portland, Oregon; Montpelier High School and the University of Vermont, in Montpelier, Vermont; The Advanced Technology Environmental Education Center, in Bettendorf, Iowa; and the Miami-Dade Community College, Miami, Florida.[1] These programs were studied in-depth to address the questions posed at the beginning of this brief. Several program commonalties which emerged in the analysis of promising case study sites are presented below.

Two distinct phases emerged from the study of promising programs. First, the programs' origination signaled the importance of local leadership. Second, the different approaches taken to connect professional development opportunities and workplace learning showed key elements of successful program implementation.

PROGRAM DEVELOPMENT: LEADERSHIP AND VISION

Innovative practices are most likely to be the product of strong leadership in response to community needs. Across sites, quality professional development programs resulted from local leadership addressing pressing educational needs. For example, the unifying trait the majority of sites share is the vast amount of support and leadership required to initiate the program. The Business-Education Compact, Jackson-Hillsdale Partnership, and Miami-Dade Community College each had an individual leader or group of leaders who initiated the program's development and fostered its growth. These institutional leaders had the vision to build professional development opportunities in response to local community needs connected closely to the world of work.

One program—conceived as a partnership including public schools, local businesses, and a cooperative community college (see case study on Jackson-Hillsdale STW Initiative) necessitated a great deal of leadership to develop a common vision,

He is just outstanding. He says that community colleges are going to be dead if they don't do something real fast about getting their faculty up to speed in this fast and changing place. His goal was to really get them out into the world.

*BEC Executive Director,
on the value of visionary leadership*

establish the partnership, motivate prospective partners, seek internal and external supports, and work out the details for collaboration. In this case the leadership was provided by the intermediate school district who teamed up with business leaders in the area. Their vision promoted the notion that "professional growth is the responsibility of the entire community, one in which teachers would be connected to the real world of work," as summarized by an administrator.

But how do we translate leadership into focused program development? The Miami-Dade Community College Teacher and Learning Project' quest provided some clues. First, someone must champion a vision for change. In 1986, the Miami-Dade Community College president outlined a multi-year college-wide project to improve teaching and learning and "encourage faculty to take a leadership role in the process." In 1994 the Teaching and Learning Project was approaching full institutionalization. Second, change must be realistic and tangible. The key to successfully promoting the MDCC project required a clear vision involving declaring institutional values and focusing on faculty excellence (see box). Third, leadership behind the project must provide opportunities to enhance teaching/learning and nurture new faculty. To this end, faculty was heavily involved in several of the Project's subcommittees and played an important role in designing, troubleshooting, assessing, and reviewing progress of major activities, policies, and procedures.

Following a similar process and objectives, the Business-Education Compact realized that faculty had to update their knowledge of technical applications beyond the classroom and made workplace learning even more visible in its core objectives. Similarly, Montpelier High School wanted to develop a community of learners in which both teachers and students will be exposed to workplace learning. In all instances, strong leaders were able to champion initiatives and rally key participants by building a common purpose.

Making further changes in curriculum and instruction to addressing current education reform required an understanding of curriculum integration and a willingness to implement high academic standards. Learning about curriculum design, understanding principles of current school reform and related academic standards, and infusing applied

learning in existing curricula served as a motivational point for program development. At Jackson-Hillsdale, for example, the curricular component had an impact on the entire staff. Infusing applied academics into existing math, language arts, and economics curricula provided professional development opportunities in curriculum and instruction. In addition to learning about integration practices, the entire 7–12th grade staff received training in the use of applied curriculum materials.

However, each institution’s needs are diverse and therefore each program is unique. Some programs were new undertakings, begun from scratch while in other cases programs could benefit from the institution’s prior experience. For example, two of the sites developed new programs building upon a preexisting one. By extending programs already in place, Jackson-Hillsdale STW partnership and Montpelier High School worked within an existing framework to enhance their professional development opportunities with a workplace focus. All in all, strong leadership armed with a clear vision for program development responding to specific needs was the common ground among the institutions.

**MIAMI-DADE COMMUNITY COLLEGE
TEACHER AND LEARNING PROJECT**

The objectives of the faculty, staff, and program development initiative were made very clear from the beginning and included:

1. To improve teaching and learning with focus on the increasing numbers and needs of nontraditional students to provide them with high quality education.
2. To make teaching at the college a professionally rewarding career by establishing high performance standards to challenge faculty and enable them to take pride in their accomplishments.
3. To make teaching and learning the focal point of MDCC’s activities and decision making process.

**PROGRAM IMPLEMENTATION:
PARTNERSHIPS FOR CHANGE**

Once the institution had established a common purpose and the need to redesign professional development, the implementation approach was tailored to local circumstances. In our analysis, three major components appeared as a common thread across innovative programs. First, each program demonstrated a comprehensive vision integrating teaching, counseling, internal and external supports, and the common purpose of improving student learning. The second commonality involved a willingness to establish partnerships involving academic and technical faculty, administrators, community leaders, businesses, and postsecondary

institutions. Finally, each program focused on work-based learning opportunities aligned directly or indirectly with school-to-work reform premises.

COMPREHENSIVE IMPLEMENTATION VISION

In general, a comprehensive implementation vision was aligned directly or indirectly with the school-to-work reform premise linking teaching with real-world applications, and integrating academic and technical programs to enhance learning and career development for all students. For instance, educators and business leaders at the Business Education Compact, wanted faculty and students to increase their understanding of the real world. The program's approach was to bridge professional development and the workplace and provide exposure to industry and how academic and technical knowledge are applied.

Montpelier High School (MHS) offered perhaps the most compelling example of a comprehensive innovative design. Its approach was based on educational restructuring principles and envisioned professional development efforts, including reforming preservice education for future teachers, implementing a site-based management structure for current teachers, and developing personal growth opportunities for students. The MHS program's design was based on the concept of a professional development school to foster "responsibility in the challenges and possibilities of working in today's educational and community-based organizations."

How are we going to get these kids today thinking about tomorrow [in realistic ways]? That's why I'm heavily involved in this program [and] anything that has to do with education and business that can provide students with practical experiences.

A business leader, on the need for instruction connected to the world beyond the classroom.

Concurrently, MHS secured internal and external supports for its initiative by implementing a site-based management process. The Management Team, made up of eleven members of the high school faculty, provides input on four major areas: curriculum and staff development, general administration, operations, and school climate. Division meetings are used to address the operational aspects of the facility, as well as the educational process within the high school. Because of these efforts, professional development opportunities are connected to the whole school enterprise and are emphasized as a continuous development process.

To further support this professional development approach, MHS switched to a modified long block schedule to ensure teachers' collaboration throughout the week. During a faculty meeting every Monday afternoon, for example, the management team tries to facilitate more extensive discussion of curricular or student issues. On Wednesday mornings instructional and pedagogical issues are addressed. These opportunities to meet and discuss curriculum and instruction during the week keep educators up to date on current school issues and allow them to reflect on implementation considerations. As teachers participate in follow-up activities and discussions each week, their learning from each other becomes another source of professional development. This recognition of expertise among peers is further reinforced by the school's approach of using current MHS faculty to provide inservice training. The resulting comprehensive vision fosters the continuous development of a professional learning community.

Community college sites chose to ground professional development in a series of education centers targeting specific areas of interest. The Advanced Technology Environmental Education Center (ATEEC) envisioned creating a "national world-class network" of community colleges that actively maintain the environmental technology workforce. Specifically, ATEEC is dedicated to advancing environmental

technology education through curriculum development, professional development, and program improvement at both the secondary and postsecondary levels. Its objectives are to strengthen math, science, and technical curriculum and instructional materials that support environmental technology education for all students by: (a) offering professional development opportunities for community college and secondary educators; and by (c) providing support services for program improvement.

Similarly, the Miami-Dade Faculty, Staff, and Program Development Initiative (FSPDI), was designed to “raise the status of teaching as a profession” by providing comprehensive support and information to faculty. Teaching excellence is promoted through Teaching and Learning Centers that offer support for instructional design, including classroom research and expanded application of technology. In 1996, two of the campuses—Kendall and Wolfson—had Teaching and Learning Centers featuring participatory management. The pursuit of faculty excellence is expected to enhance the technical knowledge base and instructional skills.

Across innovative sites, the comprehensive implementation vision included providing support services via scheduling changes, managing with a participatory style, providing information concerning curricular and technical issues, and updating staff on activities to support professional development opportunities. Some programs relied on traditional

formats (e.g. newsletters), while others have begun to tap into the Internet to serve as a means of networking and a clearinghouse of information. ATEEC’s web site (www.ateec.org) has become one of the organization’s greatest avenues for disseminating information. Menus on this site include: Curricula/Programs, Environmental Links, Faculty Development, and Publications. As access to the Internet increases—especially at the secondary level—this site will be capable of providing current resources and support to practicing educators in the field of environmental technology education.

WORKING IN PARTNERSHIPS

Another important component of program implementation is building internal and external supports by establishing partnerships with key stakeholders. Partnerships with postsecondary institutions were evident across all sites. For instance, building partnerships with local universities to collaborate in Professional Development Schools (PDS), support program design, or help conduct institutes and other professional development programs was a common theme. By connecting with postsecondary institutions, sites tapped into valuable sources of expertise for program design and implementation. These connections seem to strengthen the opportunities to build communities of learners and to expand the horizons of both students and teachers. As an additional benefit, students and teachers can earn advanced graduate credit when they take advantage of these postsecondary connections.

At another site, ATEEC worked with three organizations—the Hazardous Materials Training and Research Institute (HMTRI), the Partnership for Environmental Technology Education (PETE), and the University of Northern Iowa—to design, implement, and achieve its goals. Similarly, for several years now, Montpelier High School and the University of Vermont (UVM) have developed a collaborative partnership to

At MHS [student teacher] interns are seen as co-professionals in the school, able to teach and perform other adult roles in the life of the school, for example, as participants in planning professional development activities and duties. Interns are involved with a variety of people in the school and thus are mentored and supported, as well as evaluated, through team efforts.

MHS Administrator, on the benefits of developing a participatory internship.

We're valued in the classroom. It is truly a cooperative experience. At MHS it has been a unique experience. It was termed as "co-professional".

A participant intern, on the nature of her experience as a student-teacher intern on the MHS/University of Vermont partnership program.

establish and maintain a Professional Development School (PDS). The Montpelier Professional Development Site, in conjunction with UVM, provides a unique experience for students in the Secondary Education program who intern at MHS. This program was designed to actively engage preservice teachers in the school as interns. At this site, UVM faculty co-teach courses with MHS faculty at the high school. This collaborative educational team subsequently evaluates each intern. The current structure of this PDS allows both one-semester and full-year internships as student-interns either complete their Bachelor's or Masters of Education degree. Interns are asked to participate in a number of activities, to become "immersed in the total life of the school," and to "use their time in the school to visit teachers and observe in classrooms both in and out of their academic discipline and at varying grade levels."

Of course, partnerships with employers in the community are essential to professional development opportunities linked to workplace learning. Some sites developed partnerships with local chambers of commerce, while others sought individual corporate sponsors who could provide funding. In most instances schools will collaborate with several companies in the form a consortium. The Business-Education Compact, organized as a non-profit organization, represents an innovative approach to connecting employers and educators. Membership dues, contracted services, grants, and contributions fund this organization. The Board of Directors for the BEC is currently made up of 30 business leaders and 30 educators. Since its establishment in 1984, more than 1800 educators have

participated in BEC programs. Also, more than 300 businesses of varying sizes and interests have participated in these programs.

WORK-BASED LEARNING

The focus on work-based learning is a key component among innovative sites. Through a variety of work-based learning opportunities, programs allow faculty to get in touch with the "real world," to develop career awareness in various industries, and update skills and knowledge in selected occupational areas. Through partnerships with business and industry, work-based learning serves as a vehicle for linking community groups, government agencies, businesses, and educational institutions, enhancing the preparation of both students and educators. These work-based learning opportunities included:

- Fellowship and internship programs that provide structured work-based learning opportunities.
- Short-term professional development opportunities including job shadowing experiences, visitation programs, and other experiences providing brief exposure to workplace activities.

FELLOWSHIPS/INTERNSHIPS

The collaborative developed by the Greater Jackson Chamber of Commerce and Spring Arbor College is a good example of a fellowship program. Their Business Fellowship Program was designed to encourage educators and corporate individuals to participate in collaborative workplace experiences. The Business Fellowship Program is based on a six-week summer experience. Each week, educators spend 36 hours in the workplace making observations and working on activities that apply concepts learned through their work-site experience. Four additional hours a week are spent on the Spring Arbor College campus

Traditional in-service days—dog & pony shows that are set up weeks in advance—are a thing of the past.

Internship participant on the innovative approach to working in today's educational and community-based organizations.

discussing the implications of their experiences and their application to the classroom. Follow-up sessions scheduled during the fall and spring semesters allow participants to share lesson plans, which have been implemented based on their experience during the Business Fellowship Program. In addition, participants discuss changes that have occurred in their pedagogy and how these changes have affected their classroom. Participants may elect to earn two graduate credits from Spring Arbor College.

At the Business Education Compact (BEC), an internship program was developed to place K-16 educators (i.e., teachers, administrators, career coordinators, School-to-Work coordinators, and counselors) in worksite positions with Oregon employers. The BEC and specific businesses cooperate to make sure that the intern's needs and interests fit with a project. In the last twelve years, more than 200 employers have participated, and over 600 projects have been completed. For example, its Metalswork internship program unites industry, government, education, and community groups to focus on improving the skills of the emerging, transitional, and existing workforces in the metals industry. The Oregon Precision Metal Fabricators Association (OPMFA) and Oregon Metals Industry Council (OMIC), with the facilitation of the BEC, have entered into school-to-work partnerships with ten high schools and six middle schools in the Metro-Portland area to pilot innovative ways to teach students and educators about the metals industry. Teachers and counselors from the schools participate in summer and school-year internships in metals companies to learn about the industry and translate their knowledge into their curriculum. To earn university credit through

Portland State University for the internship experience, the intern drafts an Action Plan. The Action Plan documents how educators will translate their summer business experience into something applicable to students in their classroom.

Similarly, at ATEEC, the Faculty Associates in Science and Technology (FAST) internship program was originally designed as a source of professional development opportunities tied to ATEEC's mission. The FAST Internship Program is based on a four to six week summer experience. Educators spend 40 hours a week working on their assigned projects, making observations, and applying concepts learned during their work-site experience to their individual academic setting. Further, ATEEC developed a two-week "Fellows Institute" offered in June on the University of Northern Iowa campus. Supported by a National Science Foundation grant, the institute was designed for secondary and community college educators with the following objectives: (a) Continue development of model articulation programs; (b) recommend exemplary math, science, and environmental technology instructional materials; (c) identify and create instructional activities for teaching real-world applications in the disciplines of math, science, and environmental technology; and (d) evaluate and improve an instrument that educational institutions can use to assess their environmental technology programs.

I plan to use some real-life examples [in the classroom]. I think giving a situation that the students can relate to and having to use math to solve it will give them insight that math really is used in the real world.

A fellowship participant on potential implementation of workplace applications in the classroom.

The Fellows Institute was designed to meet these objectives by relying on current high school and community college instructors' expertise in curriculum development and implementation. The Fellows' composition is approximately one-third community college environmental technology instructors, one-third community college math or science instructors, and one-third high school math, science, or technology education instructors. During the institute, fellows are asked to critically evaluate curriculum and educational activities. The final composition of the group is ultimately decided by ATEEC to meet the needs and goals of the subsequent Fellows Institutes. Once chosen, a fellow receives a stipend of \$1,000 for working on grant objectives. Two graduate or undergraduate credits are awarded to each fellow. In addition, ATEEC pays tuition, fees, housing, and transportation. Each year a dedicated and motivated group of faculty is chosen to work as fellows and to represent ATEEC in conferences and their institutions across the country. The experience appeared to be a rich source of ideas for the improvement of curriculum and instruction in environmental technology.

SHORT-TERM EXPOSURE

Across innovative programs, various short-term professional development opportunities provided exposure to workplace applications and the workings of certain industries. For example, the Jackson-Hillsdale School-to-Work Partnership, in collaboration with the Western School District, designed a Teacher Externship Program to further promote technology within the district. This program is a voluntary, one-day teacher visitation to technology companies in the area. It is open to 4th–12th grade educators and student teachers. Through these visits, teachers gain exposure to technology applications in the workplace, and may form some ideas about translating these application into classroom activities. In addition, the program helps maintain teachers' knowledge of technology applications and become better informed on career possibilities in the field—knowledge which can be

A big thanks goes to [visitation coordinator]. He really helped me see how much math he and his employees use every day. I am looking forward to an externship....and hope to increase project-based learning—those that involve different areas of math into my lesson plans.

Visitation Program participant on the value of exposure to workplace applications.

shared with students. Between 1993 and 1997, more than 55 teachers participated in the program. To provide continuous support and information on improving environmental technology education, a series of Regional Instructors Resource Conferences are held annually at each of six administrative regions. They provide instructors with current information related to the effective implementation of environmental technology education. Each regional conference draws approximately 100 participants annually. In addition to the larger regional Instructors Conferences, smaller train-the-trainer workshops are held within each region to help instructors obtain up-to-date training about current topics.

At BEC two types of short-term visitation programs are available for teachers: career-focused and curriculum-focused. The career-focused opportunity is available for K–16 educators who can only make a one- or two-day commitment. These opportunities are open for classroom teachers, counselors, STW coordinators, and administrators and are similar to the program at Jackson-Hillsdale. The curriculum-focused visitation days usually occur over a four-day period, in which each day is devoted to the application of subjects (e.g., math, science, language arts, social studies) in the workplace. That is, teachers focus their attention on identifying potential applications for academic concepts in the context of the particular industry visited during that period.

CONCLUSIONS AND IMPLICATIONS

It was evident across sites that strong leadership is necessary to set an agenda for educational change informed by the premises of current school reform. Leaders at various levels understood the need to provide teachers with professional development opportunities connected to workplace learning to facilitate change in the long run. Strong leadership was necessary to recruit supporters from key sectors (e.g., faculty, administrators, employers) and to craft a common agenda based on local needs and resources. A shared vision for change emerged from this process and was understood by all parties involved at this initial stage.

At the implementation stage a collaborative approach was important for establishing the working vision for professional development, to meet local needs, and to gain teacher participation. The common theme was the need to link professional development opportunities and workplace learning. The scope and nature of each approach varied from school-wide restructuring ideas to programs focusing specifically on developing new professional development opportunities. Implementing each program required working in partnerships with other schools, academic and technical faculty, employers, and between institutions at different educational levels. Internship and fellowship programs were the primary source of professional development opportunities and appeared to provide a well-focused study of workplace applications. Short-term opportunities (e.g. one- or two-day visitation programs) were also useful in increasing the number of faculty exploring workplace learning.

As indicated by these findings, it is important for educators to understand that the extent of local leadership will dictate the nature of professional development opportunities linked to workplace learning. Gaining support from employers, faculty, and other educational leaders in key positions is a formidable task. Pushing a “good” idea, believing that it will sell itself, may not be sufficient to gain support

from key parties. A great understanding of the need for change, alternative strategies for professional development, and the ability to build a cohesive partnership are all necessary elements for successful program development. Bridging the motives and agendas of all people involved is a challenging balancing act requiring patience and the ongoing nurturing of partnerships. Thus, to maintain the focus and quality of each program, it is important to transfer some of the responsibilities in design and development to those who participate in the programs. Participatory management strategies appear to provide the means for continuous improvement of these collaboratives.

Further, it was clear that all sites were successful in providing professional development opportunities connected to workplace learning. In all instances, exposure to workplace applications was a vital part of the professional development experience. For instance, it was evident that internships and fellowships requiring relatively greater involvement provided more rewarding experiences to a small number of teachers. However, the cost associated with these opportunities appears to be a factor limiting the participation across all sites. Thus, visitation programs were designed as an alternative, to increase the number of faculty exposed to workplace learning. To address this issue, the BEC manages a computerized matching system allowing teachers to identify and participate in workplace learning opportunities throughout the region. There are 48 secondary schools and two Community Colleges in the Metro-Portland area currently utilizing this system, reaching more than 30,000 educators and students.

In addition to the cost of participation and opportunities available, it is important to note that the quality of workplace learning experiences may vary depending upon what participants actually do during and after participation. In internships and fellowship programs, it is clear that curriculum activities provide more in-depth study of workplace applications,

opportunities to reflect on connections to the classroom, occasions to develop action plans, and in some cases to gain graduate credit. Although assessing the impact of these experiences on curriculum changes and student learning exceeded the scope of this study, it was apparent that both internship/fellowship and short-term opportunities served the purpose of providing exposure to interested faculty. The extent to which these experiences translate into classroom actions warrants further research to document success in applying workplace learning experiences. Further study is particularly important in the case of short-term professional development opportunities where direct links to classroom applications appear to deserve more attention.

In conclusion, it is evident that exposing teachers to workplace learning has numerous benefits for teachers, schools, employers, and students. However, exposure alone may not be enough. An appropriately crafted curriculum must serve as the vehicle to focus participation and allow teachers to make the connections in the classroom—even in cases where exposure is limited to a few days. Also, it is imperative that we develop a better understanding of how professional development programs impact student learning and career development. If we are to improve teacher preparation through participation in workplace learning, then it is necessary to document and measure the extent of curricular changes, instruction, learning, and student understanding of academic applications beyond the classroom.

ENDNOTES

[1] For a detailed description of each of these promising sites see either the respective case study in this NCRVE BRIEF series or contact program liaisons directly:

Shelley Jusick, STW Coordinator
Jackson County Intermediate School District
6700 Browns Lake Road
Jackson, MI 49201
517-787-2800
517-787-2026 fax

Tamara Busch-Johnsen, Executive Director
Business-Education Compact
3800 SW Cedar Hills Blvd. #200
Beaverton, OR 97005
503-646-0242
503-644-9968 fax

Owen Bradley, Counselor
Montpelier High School
5 High School Drive
Montpelier, VT 05602
802-223-6368
802-223-1923 fax

Diane Gere or Cynthia Lake, Instructional Designers
Advanced Technology Environmental Education Center
500 Belmont Road
Bettendorf, IA 52722
319-359-7531 ext 292
319-344-355 fax

Marie Nock, Director
College of Training and Development
Miami-Dade Community College-Kendall Campus
111011 SW, 104th Street
305-237-2366
305-237-0958 fax