

## **Schools That Work:**

Strategies for integrating academic and vocational training, community based learning and further education

By David Gibson

### **Introduction**

In order for schools to work for all learners and at the same time, effectively address local economic and community development needs, there needs to be coherence in the educational system. (Clune, 1993) The policies and practices of governments, the resources of non-governmental organizations and the knowledge of the education system in partnership with businesses and the community need to work together in at least three levels. At the national level, strategies are needed to encourage innovation, research, and widespread adoption of proven and promising best practices, strong assessment practices, and evaluations of programs that assist organizations in continuous improvement. At the level of large-scale partnerships among higher education institutions, non-governmental agencies and businesses, the incentives and challenges laid out by national policy begin to take shape in innovative programs and agreements among key players in education and training. At the local level, where this paper focuses, we find individual schools in particular communities offering direct services and learning opportunities that fulfill the education and training vision of the broader community.

To provide consistently high quality learning opportunities at the local level, school and community leaders need unambiguous encouragement and concrete support in several areas, including:

- Creating coherence and integration among community, education and economic reforms,
- Implementing standards and assessments that align with curriculum,
- Providing a curriculum that promotes personal learning integrated with real-world, community-based problem-solving,
- Using accountability systems for both programs and people that reward risk and measure incremental progress,
- Using resources flexibly and effectively.

Many researchers and organizations have found that systemic school change occurs best when supported by partnerships using community-wide strategies in a collective enterprise to improve the education and preparation of all learners. (VISMT, 1999; NICL, 2000; JFF, 2000; STW, 2000) Employers, community-based organizations, and postsecondary institutions play a variety of roles: providing work-based and other authentic learning experiences, serving as mentors and coaches, and assisting in the design of integrated curricula. Partnerships need to be strengthened for these roles by new conceptual and structural tools and technical assistance in creating high-quality learning opportunities and on measuring success through benchmarking and accountability systems.

At the national governmental level, the integration of education with economic and community development policy agendas needs to support local actions that take innovative approaches to meeting high standards for all learners and learners of all ages. Reformed policies are additionally needed for such issues as graduation requirements, large-scale assessments, and teacher qualifications. National policies and funding support can also encourage new collaborative institutional arrangements among employers and other community partners to connect them to the classroom, to form leadership groups, to conduct activities across several sites, and to build a capacity to provide technical assistance at the local level. Requests for proposals, program guidelines and models, and regulations, for example, can bring together multi-stakeholder leadership groups to mobilize local political and financial capital for reform. Promoting and strengthening the creation of many levels of partnerships does much to develop the relationships between schools and their business and other community partners.

There are several assumptions which are implied by the above:

- Change is needed in the organization of local education and training programs in order to meet the needs of all students and to transform local economies and communities.
- To make the needed changes, governments, institutions and local communities need to work together to accomplish the difficult task of bringing high levels of knowledge, skills and aptitudes to all citizens.
- When that change is underway - for it will never be completely finished - there will be significant new roles, responsibilities, structures, tasks, and organizational practices in place.

Therefore, we need to rethink our vision of learning, understand more about building and sustaining partnerships, and see models and options for reorganizing local education and training programs.

### **A New Vision of Learning**

So much has been written about the need for relevancy in learning, and for a curriculum that meets the real needs of today's economy, that I won't belabor those points. However, two stories might help set the stage to talk about schools that work for all students and schools that work to transform their communities. There once was a young man who went traveling with his father to another land to visit long-lost relatives. The relatives lived in the old style and had a storehouse for vegetables that was buried deep in the ground. His aunt asked the young man to go into the storehouse to get some potatoes for dinner. He walked carefully down the dark steps into the cool moist cellar. The young man, who had grown up in the modern way of life, had never experienced such a thing. It was dark and cool, with dampness in the air. Along the floor and on wooden shelves, laying in rows, were pumpkins, squash, and potatoes. There was a shaft of light coming into the cellar from a small hole in the ground, and in a dark corner there sat a lonely potato that had been left behind many times. The potato had sprouted roots that wound their way around obstacles and in between the beams and posts that held up the earthen roof. The roots stretched their way toward the light, presenting their leaves to the sun.

The boy thought to himself, and has never forgotten this lesson; "Every living thing strives to be the best it can be." (Costa, 1999)

The vision of learning guiding this paper rests on the assumption that students are naturally motivated to learn. They are endowed with an urge to explore and understand the world just as much as that potato is endowed to strive for light. But this vision runs counter to what many learners experience in schools - at every level from primary school all the way up to graduate levels of education. Let me explain the disconnection with another story.

One day a young student was sitting at a classroom desk that was piled high with unfinished worksheets. The student, daunted by the pile of work, reached up with an outstretched hand, getting the attention of the teacher. The teacher said, "Yes, do you have a question?" The student replied; "I sure do. Why are we learning this? Are you sure I will need this in the future? Am I getting all the skills I will need to get a good job? I want the best opportunity possible!" the teacher leaned over the desk. "Well, my friend, I suggest that you start working harder! You will get out of school only what you put into it." "Oh," said the student quietly, looking down at the desk disappointed. After the teacher left, the student whispered, "Then forget it."

The teacher is right in one sense; working hard is a part of the discipline of success in school, as it is in life. But the student's answer also raises an important question: *Is working harder at what has not proven successful really the answer?* (Penn & Williams, 1996) There is a saying in business "Don't work harder, work smarter." We don't need more of education as it is today; we need a whole new way to think about teaching and learning. So let us begin with a blank page. Let's forget about the buildings, the classrooms, the teacher's, and even the content of the curriculum. As long as we're starting from scratch, let's begin by talking about the learner and the process of learning.

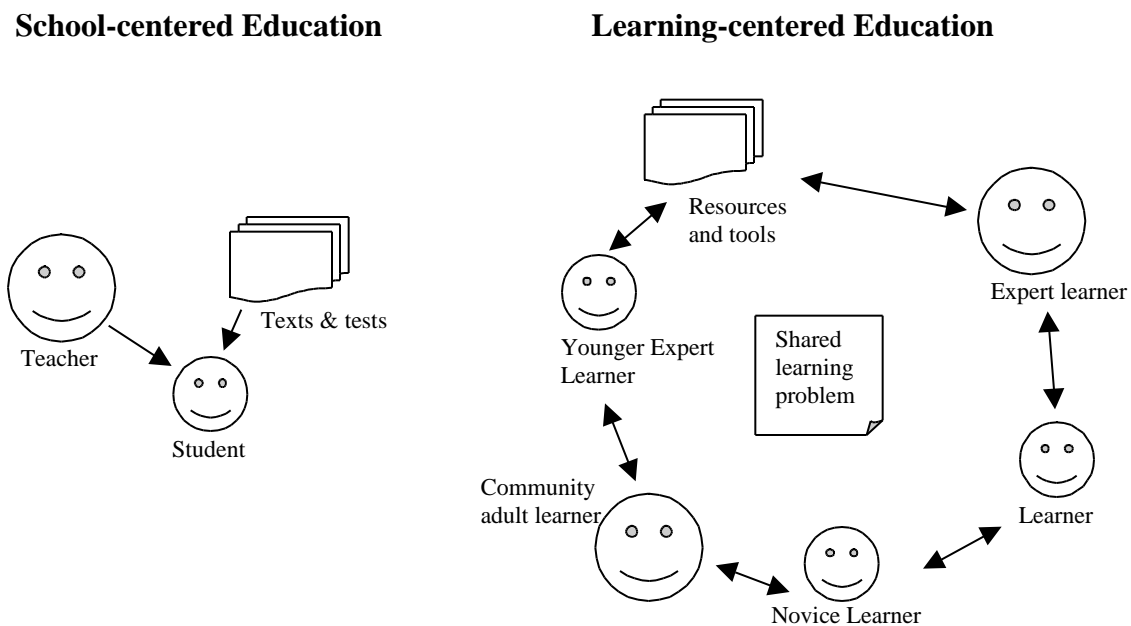
All learners possess the same three characteristics. They all have the potential to learn at higher levels than we customarily assume. They all possess a rich variety of strengths, interests and aspirations as well as weaknesses. And they all learn in different ways. Each of these statements deserves careful study unto itself, and they deserve further study together in order to integrate them into a new vision of a learning environment that can accommodate, challenge and support all learners in reaching the highest levels possible. Only when we fully understand and integrate these three characteristics is it possible to redesign schools so that they work for all students. Only then can we redesign the processes of learning and the times and places where those processes can be most effective. It will probably come as no surprise to you that the place we call "schools" today are but one of the options.

Think back in your own life to the most powerful learning you have ever experienced. What made the experience powerful? What made it memorable? Who else was involved? Were you alone, or did you perform in front of a larger audience? Were there key people who brought about this powerful experience, or were you, primarily by yourself responsible for creating the moment? What were the conditions that led to and supported

this key moment in your life? For many people, among the most powerful learning experiences are those that are shared with others who are working together to solve a common problem. So we have two main ideas in the new vision of learning. First, it is personally relevant and highly meaningful. Second, it is a result of sharing common challenges and successes with others.

The new vision moves beyond a traditional "content-centered" curriculum that is determined by what experts think students should know and be able to do. It moves beyond a "process-centered" curriculum, which teaches students how to learn and helps them see how they learn best. The new vision even moves beyond a "student-centered" curriculum that places the student in the role of the active agent of learning. All of these "school-centered" ways of focusing our attention on aspects of learning are necessary and good, but we are pointing beyond them now to the key to schools that work for not only all students, but for the entire community in which the school resides. (Figure 1) This new focus is known as "learning-centered" education and it arises when we build learning communities that are connected to one another through common problems and challenges. (Carroll, 2000)

Figure 1. Different visions of education



## A Connected Learning Community

A connected learning community is more than just a collection of people who are all learning something at the same time and place; that is what we have today. Schools today are primarily places where a lot of people (or at least some of them) are all in one place, learning things, sometimes together, more often alone. Students read and write on their own, listen to and ask questions of an authority figure, and take tests without help from others. Teachers work alone, for the most part, and rarely have time during the school day for study, reflection and writing. A connected learning community, in contrast, focuses on a common problem and promotes mutual exchanges between the members of the community around that problem. Neither the curriculum nor the learner is at the center. The shared problem is in the center and learners are relating to each other around the problem. In addition, everyone connected to each other is a learner, young, old and in between; the distinction among learners is that some are more experienced and have more expertise while others are just starting out and are novices.

To expand upon the contrast, we can compare elements of a school-centered curriculum with one that is focussed on learning. (Figure 2) A good school-centered education has a coordinated sequence of courses addressing what all students need to know and be able to do. It has teachers who can authoritatively talk about their subjects and help guide students to new knowledge. The courses are arranged in a logical and sequential order and generally must be taken in that order, to account for the levels of difficulty that experts believe adheres to their subject. The courses, organized efficiently into classrooms, are essentially the same for all students, using the same texts year after year. Courses usually have as their goal the coverage of the texts and the proof of learning by students who can score well on tests based on the texts. And it all takes place in a safe building that promotes quiet, reflective study and practice.

Figure 2. Contrasts between school-centered and learning-centered education.

School-centered education has...	Learning-centered education has...
Curriculum	Knowledge work in a connected learning community
Teacher and student	Expert and novice learners
Linear courses	Authentic projects, asynchronous communications, embedded assessment, real-time knowledge
Standard curriculum	Mass customization
Schools, classrooms, greater levels, class time	Long-term complex tasks, with personal development assistants
School is the place of learning	Networked centers
Texts, business computers, applications	Tools designed for learning, simulations and modeling, visualization tools

When the focus shifts from schools to learning for all students and the transformation of community and economy, much of those structures are not relevant. Instead of only teachers and students, there are now learners of all ages, some who have more expertise

and others who are novices. The difference is that everybody is learning. Instead of only a set curriculum with prearranged standardized linear courses, there are also complex authentic projects that span across space and time and that take the learning team into unexplored territory as they together seek solutions and invent new methods for uncovering the knowledge needed for mutual success. The difference here is that the curriculum is complex, integrated and pliable to serve both the needs of learners and the community. Instead of only texts and tests in classrooms sealed off from the world, there are also resources and tools for modeling, visualizing, analyzing, building, and meeting and working with people in the workplace and community.

Learners in the connected learning community build both long-term relationships and new knowledge as they develop new applications and solutions to shared problems. The community connections and new knowledge built through shared problems transforms the economy and community. The mutual exchanges among members of the team create an educational experience that maximizes the three characteristics of learners: capacity for higher levels of thinking (potential), strengths, interests and aspirations (direction), and differences in learning patterns and preferences (uniqueness).

As a foundation for mutual exchanges, a connected learning community treats all learners as resources for each other, for the faculty, and for the community. With mutual respect and a balance of exchanges, everyone involved works to sustain the relationships and to contribute to flows of information which focus on:

- Real problems and learning challenges in the community,
- Awareness of the intention of learners, as members of a group, to make contributions to one another's well-being and the knowledge and success of the community,
- A variety of expressions and opportunities to share knowledge, which solidifies learning and provides models for others, and
- Validation of learning, which recognizes, accredits and rewards learners.

As you can probably see, a learning-centered education in the vision presented here is not only about new content, classroom arrangements and pedagogies. It is not simply about new times and places for learning. The connected learning community creates learning experiences that continually tap the power of transformational and memorable learning moments for each individual *while solving pressing, real problems and issues in the community.*

### **Partnerships**

Partners can work together at three different levels: cooperation, coordination and collaboration. (Kagan, 1991) When partners cooperate there is an informal relationship between the organization's and the cooperating group does not have its own structure. When they coordinate, partners share mutual goals and they may agree to use resources in similar ways while maintaining their independence from one another. Collaboration takes the most work. The group members must invest time and effort in developing relationships with each other and the skills to work together to establish common goals

and agree to use their personal and institutional powers to achieve their goals. In collaboration, the relationships are mutually beneficial and well defined. The agreements between the partners develop clear structures for shared responsibility, mutual authority and accountability for success, and sharing of resources and rewards.

An outside facilitator is often helpful in forming and sustaining a collaborative partnership. Governments that wish to support the widespread adoption of community level partnerships need to develop a cadre of skilled facilitators who can provide direct service and assistance at the local level. Those facilitators need training and experience with in group development, planning, and facilitation skills for collaborative problem solving and building consensus in diverse communities as well as a background that prepares them for education and community economic development issues. Molloy and others (1995) have identified three strategies that facilitators can use to help partnership develop from the initial stages of exploring the partnership, through building the partnerships strength and relationships toward a shared vision, to translating those activities and planning processes into ongoing collaborative action. Those strategies include:

- Information-gathering processes to build a base of knowledge and identify activities the partnership may be to pursue,
- Team-building processes that help a diverse group build trust and learn to share leadership and decision making, and
- Network building that involves identifying financial and human resources and expanding the number of people involved and the quality of their involvement.

### **Models for Reorganizing Secondary Education**

Goldberger & Kazis (1995) provide us with design principles for a high school program that advances school-to-career goals for all students, regardless of their immediate next steps after graduation. Their five premises form an outline of a reform agenda that expands options for post secondary education and career development for all students.

1. Non-tracked, thematic programs of study can prepare all students for entry into both higher education and high-skilled employment.
2. Selection of a career-focused program of study in high school should be based on general interests and should not be a high-stakes career decision.
3. Work-based learning yields benefits that school-based education alone cannot provide and should be an integral part of the core curriculum for all students.
4. Separate vocational and academic tracks should be gradually replaced at the high school level with programs of study emphasizing intellectually rigorous, practical education for all.
5. The integration of secondary and post secondary learning environments is critical to the development of rigorous programs of career related education.

The following strategies that are common in U.S. schools undertaking school-to-work reforms are consistent with the above design principles, and offer concrete models to consider.

### **Personal Learning Plans**

The Personal Learning Plan (PLP) is a structured process for building educational decisions and plans upon the strengths, interests and aspirations of the learner. (Gibson, 1999) It involves students and parents as partners with the school in examining the possibilities for making the curriculum of the school and any and all other potential learning experiences outside of school available as valid learning goals for growth in one of three areas: academic, social, and personal goals. Student-led conferences and student-determined goals, action plans and assessments are the centerpieces of the approach.

Bradley (1999) likens the PLP to a "sorting table" where the student can bring any kind of learning interest or goal and receive support for making an action plan to study, perform, and receive credit for gains in any area. In schools that seek to personalize education for every student through programs such as independent study, off-campus learning, internships and apprenticeships, and programs such as those listed below, the PLP becomes an integrator of a diversity of experiences with a common planning and assessment procedure for all students.

The PLP for learners about to graduate includes a career-oriented portfolio, with resume, letters and documentary evidence of achievement, and for all learners it serves as a reflective collection of work and experiences to be used in life, career and college planning. Electronic portfolios and support programs for PLP make it possible for learners and parents to participate continuously and at any time.

### **Block Scheduling**

Block scheduling organizes the school day into a few long class sessions to allow flexibility for instructional activities. The advantages of block scheduling include: reducing the fragmentation of the day, creating flexibility in groupings, which can allow for individualized education, improving focus in the classroom for in-depth study and projects, and relaxing the pace of the school day. (LAB, 1998) It is a reform that can often be implemented without additional funding. Cawelti (1994) identifies block scheduling as one of the primary indicators of high school restructuring. There are many different blocks scheduling configurations, including:

**4 X 4 plan.** This plan divides the school day into four 90-minute periods with additional time added for lunch and passing between classes. Most schools that use this plan divide the courses by semester, with students taking for courses in the fall and for new courses in the spring. Teacher's typically offer 3 courses each semester and have one 90-minute block free for planning.



**Alternating plan.** This plan also divides the school day into four 90-minute periods, but students take a different set of courses every other day. The plan is sometimes referred to as an A/B plan. This allows courses to run for the full year.

**Modified block plan.** This plan combines three traditional short period days with two long block days each week. For example, Monday, Thursday and Friday might be a traditional 8 period day, and Tuesday and Wednesday might be the long block days. This schedule allows each course to have 1 long session and 3 short sessions each week, giving a variety of meeting times and lengths to each class.

**Trimester plan.** This time schedule divides the school year into three 60-day sessions. Usually, a student can take 2 or 3 courses at a time. Variations of this plan might combine blocks as in the modified block plan. 1 variation, called the Copernican plan, combines block the class in the morning and open scheduling for seminars and electives in the afternoon.

**Intercession plan.** This schedule provides an extended length of time for enrichment, extra work or new courses during a shorter term, usually 30 days or more, which is placed at the beginning, middle or end up to longer sessions, usually 60 to 75 days or more. The longer sessions might be organized along the lines of the long block or modified block plans.

## **New Career Program Structures**

**Career academies and clusters.** This strategy is a "School-within-a school," organized around industry themes such as health science, electronics, or engineering. The size of the academy is kept small (about 100 students) and typically begins in the second year of high school. A core of teachers coordinates both academic and occupation-related learning experiences that are integrated into a whole-day program. Students in the Academy may stay with the same teachers for several years. The cluster programs also offer a distinct career pathway, but they're organized as large-scale programs that offer the sequence of related courses tied to occupational groupings such as communications, human services, and manufacturing. (Goldberger, Kazis & O'Flanagan, 1993)

**Tech prep, or "2 + 2 programs."** These programs are typically designed for the final 2 years of high school in core courses which will at the same time complete essential course requirements for a specific college program. Tech prep programs smoothes the transition into post secondary programs in the same field, sometimes by granting advance standing and credit for appropriate courses taken while still in high school. (Goldberger, Kazis & O'Flanagan, 1993)

**Guidance for building local programs** (Goldberger, Kazis & O'Flanagan, 1993)

Exemplary programs have a few common elements, including:

- Young people participate starting at least 2 years before their scheduled high-school graduation.
- The programs provide both high school instruction and work-based experiences and draw from the combined efforts of schools and employers.
- They differ substantially from regular high school education in content, instructional methods, and the intensity.
- They serve a broad range of students, including both disadvantaged/ and low achieving and non-disadvantaged students.

In addition, the ten elements of quality work-based learning programs are:

**Element 1:** Partners formally agree on the goals of the work-based program and how to achieve them.

**Element 2:** Student learning at the workplace progresses according to a structured plan.

**Element 3:** Work-based experiences promote the development of broad, transferable skills.

**Element 4:** School-based activities help students distill and deepen lessons of work experience.

**Element 5:** Student learning at the worksite is documented and assessed.

**Elements 6:** The program prepares students to enter the workplace.

**Element 7:** Students receive ongoing support and counseling.

**Element 8:** The program provides orientation, training, and ongoing support to worksite in school staff.

**Element 9:** Administrative structures are established to coordinate and manage the workshop component.

**Element 10:** Mechanisms exist to assure the quality of students work based learning experiences.

The following template from the U.S. School-to-Work website (STW, 2000) helps track the stages of development in school-based and work-based components and connecting activities.