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Community-Based Learning: A Foundation for Meaningful Educational Reform

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In my community experience, I went from learning what something is, to applying it to real life. I learned why I need to know the things that I learned in math class. I had a chance to work with some neat people who let me try out things for myself. The mentor really seemed to care about me as a person, and I had fun.—A Student

Introduction

Many of today's leaders in education, business, and community development are coming to realize, even more than in the past, that schools alone cannot prepare our youth for productive adulthood. These leaders are ready to try new approaches that link learning activities in classrooms with a full range of learning experiences available in our communities.

Perhaps more important than the views of adults are the views of young people about themselves and their schools. Students often complain that their classes are irrelevant, not related to what occurs outside of the classroom, and lacking opportunities for hands-on applications. They feel they are treated as children instead of being given adult responsibilities. They feel cut off from meaningful relationships with caring adults. As a result, they are often unmotivated to study and view education as something imposed by adults rather than an exciting opportunity for them to develop their skills and contribute to others. In short, there is a growing consensus that change is needed in education, not only in reforming *what* is taught but also in *how* and *where* it is taught.

This topical synthesis summarizes what we have learned over the past 20 years about various community-based learning programs and describes how community-based learning can serve as an important contribution to educational reform in the future. The paper first defines what we mean by community-based learning and discusses it as a philosophy, program, set of strategies, and expected outcomes. Next, we describe the advantages of having multiple outcomes for

community-based learning that include a youth development perspective. We review the barriers that have faced this form of learning. The research regarding community-based learning is discussed, followed by its contribution to educational reform. Finally, we state some conclusions and recommendations for future directions. Following the text we cite key references and general references.

What is Community- Based Learning?

This synthesis uses the term *community-based learning* as a broad framework that includes service-learning, experiential learning, School-to-Work, youth apprenticeship, lifelong learning and other types. A problem with these individual approaches is that each focuses on only a portion of the learning outcomes that can potentially be achieved through community-based learning. For example, service-learning concentrates on learning emerging from service provided to meet important needs—such as cleaning up our rivers—in a particular community, while School-to-Work generally focuses only on preparing youth for employment.

We define community-based learning as the broad set of teaching/learning strategies that enable youth and adults to learn what they want to learn from any segment of the community. Our definition provides for learners of all ages to identify what they wish to learn and opens up an unlimited set of resources to support them. By *community*, we are including the schools, formal and informal institutions in one's neighborhood, and the entire world through such resources as the Internet.

Principles of community-based learning relate to the changing nature of society, the learner, the learning processes, and sources for learning. These principles have been articulated and refined over a five-year period by participants in a summer seminar organized by the Northwest Regional Educational Laboratory and focused on future directions in work-relevant education. This group, in preparing *A Model for Restructuring Education for the 21st Century* (Owens 1994), identified several critical assumptions that can serve as a foundation for community-based learning:

- Education must be viewed as a continuum from preschool through lifelong education for adults.
- Learning is what we do for ourselves. It therefore requires the full involvement of the learner as well as the teacher/mentor.
- Jobs in the future will require not only more education, but a different type of education that includes critical thinking, teamwork, and the ability to apply knowledge.
- Adults need to be involved in community affairs and to balance work, family and community responsibilities.
- Problems affecting learners today are much broader than schools alone can solve. Involvement of the family, business, labor, the community, and other agencies is essential.
- Resistance by some teachers, schools, and communities to the changes implied by the above assumptions is to be expected. Helping these groups to see the need for change and to feel empowered to guide these changes is an important challenge facing the new

leadership in education. Without this vision, supported by adequate resources and staff development, these changes are unlikely to occur.

Examples of Community-Based Learning Programs

Many programs have been funded and developed that involve important elements of community-based learning. A few of them are described here briefly, and their contributions to the learning process are discussed in the next section. Service-learning, Experience-Based Career Education, Cooperative Education, Tech Prep, School-to-Work, and Youth Apprenticeship are some of the more common ones.

Service-Learning

The National and Community Service Act of 1990 (amended in 1993) defined service-learning as a method of teaching and learning: 1) by which young people learn and develop through active participation in thoughtfully organized service experiences that meet community needs and that are coordinated with the school and community; 2) that is integrated into the academic curriculum or provides structured time for a young person to think, talk, or write about what he/she did and saw during the service activity; 3) that provides young people with opportunities to use newly acquired academic skills and knowledge in real-life situations in their own communities; and 4) that enhances what is taught in the school by extending student learning beyond the classroom and into the community and helps to foster the development of a sense of caring for others (Alliance for Service-Learning in Education Reform 1993, p. 971).

In a more abbreviated form, service-learning has been defined by the National Service-Learning Cooperative as "a teaching/learning method that connects meaningful community service experiences with academic learning, personal growth, and civic responsibility" (Poulsen 1994, p. 4). The National and Community Service Trust Act was signed in 1994 to create opportunities for young people to become personally involved in improving their communities while pursuing their personal and social development. As stated in the recent Youth Preparation for Employment policy reference document (Council of Chief State School Officers 1994, p. 23),

> Service represents a point of interface between school-, community- and work-site learning and can be used at almost any point in the youth development continuum, kindergarten through post high school. Service-learning represents an opportunity for schools and postsecondary institutions to work with employers and young people to provide meaningful opportunities for community service combined with the academic and technical skills that employers require. For children, it offers exposure to the world of work and community and provides a context for building academic and work readiness skills. For youth, it offers valuable explorations into and experiences with real world needs which can be addressed through action and initiative while further solidifying their work readiness, academic and technical skills. Service represents a holistic approach to youth development and the building of multiple competencies.

Experience Based Career Education

Experience Based Career Education (EBCE) was developed by four regional educational

laboratories in the early 1970s. As Bucknam and Brand (1983) state:

> EBCE was designed to bridge the gap between study and experience and between the classroom and the community. It takes the subject matter students normally study, adds many new ingredients about people, jobs, self, and the way communities work, and lets high school and post-secondary students learn about them in the community through direct interaction with adults in all walks of life. In the process students earn academic credit, explore the real dimensions of many careers, learn much about who they are and what they want to become, and master many of the skills they will need to succeed as adults in America (p. 66).

Recently, Shumer (1995) has stated that:

> Many of the [EBCE] programs included service-learning activities, with students working in hospitals, schools, day-care centers, and many social agencies. Students tied their community learning experiences to classes held on campus, usually as part of their regular academic program. In many ways, these EBCE programs were more integrated into the curriculum than most service-learning programs today (p. 2).

The concepts of EBCE first developed in the early 1970s have generated some projects that have continued on for over 20 years. They have also served as the springboard for a new set of programs funded by the U.S. Department of Education, called Community-Based Education Centers, that are being coordinated by the Northwest Regional Educational Laboratory in six communities across the United States.

Cooperative Education

Cooperative education is probably the most common form of community-based learning program used by the schools. It was offered by 47 percent of the nation's public high schools in 1991-92 (Stern, et al. 1994, p. 5). In most cases, cooperative education is a paid experience in which students are employed in jobs directly related to the vocational courses they are studying in high school or college. Students receive school credit for this supervised work. The level of coordination between the school staff and the employers varies widely from program to program. While associated mainly with high schools or community colleges, cooperative education programs have operated successfully at a number of public and private colleges.

As a federally funded program, cooperative education has been defined in the 1990 Perkins Amendment as

> ...a method of instruction of vocational education for individuals who, through written cooperative arrangements between the school and employers, receive instruction, including required academic courses and related vocational instruction, by alternation of study in school with a job in any occupational field. Such alternation shall be planned and supervised by the school and employers so that each contributes to the student's education and to his or her employability (Stern, et al. 1994, p. 13).

Tech Prep

Tech Prep is a federally funded program begun under the Tech Prep Education Act as part of the 1990 Perkins Amendment. Tech Prep programs are operating in all 50 states through

consortia involving secondary and postsecondary institutions in collaboration with business and industry. Generally, these programs start in at least 11th grade and encourage students to complete an associate degree or higher. Vocational curricula focusing on high technology areas are combined with applied academic courses that are designed to prepare students for success in high-performance workplaces. While cooperative education is generally perceived as a course or program, Tech Prep is viewed by some as a specific program focused primarily on the average student and by others as an educational reform measure intended for all secondary students. Key elements intended for all students include career counseling, an individual student plan, and often career clusters or pathways that all secondary students are expected to chose from in order to give direction in the high school courses they select to take.

School-to-Work

The School-to-Work Opportunities Act signed into law on May 4, 1994 is one of the newcomers to the community-based learning club. Districts receiving School-to-Work funds are expected to have three major elements: 1) school-based learning related to each student's interests, including broad-based academics, career exploration and counseling; 2) work-based learning that provides a planned program of job training experiences, paid work experience, workplace mentoring, and instruction in general workplace competencies and in a broad variety of elements of an industry; and 3) activities to connect the two through training of teachers, counselors, and mentors and through involvement of schools and employers.

As with Tech Prep, School-to-Work is perceived by some educators to be a program with specific students enrolled and by others as an educational reform strategy involving all students. The legislation itself stresses that School-to-Work is intended for all students and is meant to be systemic reform. As with other educational reform efforts, School-to-Work is sometimes associated with only a portion of the community-based learning continuum and thus fails to achieve its potential impact.

Youth Apprenticeship

While the above examples of community-based learning are governed by federal legislation and funding, youth apprenticeship, as conceived by Steven Hamilton (1990) and others, draws on Hamilton's study of apprenticeships in Germany and programs such as the Finance Academy in the United States. Hamilton has described youth apprenticeship as involving workplaces as learning environments, creating opportunities for mentor relationships to provide adult role models, and developing the high levels of academic and vocational skills being sought by employers. Youth apprenticeships are viewed by Hamilton as including "the Job Corps, Summer Training and Education Program, community service, Foxfire programs, Experience-Based Career Education, cooperative education, and informal apprenticeships" (Hamilton 1990, p. 40).

Robert Jones, Assistant U.S. Secretary of Labor for Employment and Training, has said that, "In order to increase access, teach basic skills, and use work-related structures, we need to evolve a system in this country that is truly an American-styled apprenticeship and school to work system." (Northdurft and Jobs for the Future 1990, p. 19).

Learning Strategies of Community-Based Learning

While community-based learning involves a philosophy and programs, most service-learning educators agree that it is the learning strategies that are the most critical aspect of community-based learning. At the National Conference on Service-Learning, School Reform, and Higher Education in 1994, participants agreed that:

> The focus is changing and must change from teaching to learning; from outer-directed, "expert"-driven curriculum and methodologies to more learner-centered, experience-based, connected ways of acquiring the knowledge, skills, and attitudes required for life in the world in which we now live and the rapidly changing world in which our young people will live and work (Poulsen 1994, p. 2).

What are the components of such community-based learning? Zeke Zellerman of the Association for Experiential Learning stated, at the 1994 Work Now and in the Future conference in Portland, Oregon, that there are three critical steps—framing (planning), the activity itself, and reflection (Dukehart 1994). The clearer the framing, the more the learner will get from the experience. Generally, the objectives for the learning are developed jointly by the student and the teacher/mentor. The second step is the activity itself, which can be simple or complex with many steps. The third critical step is reflection or a debriefing on what was learned. According to Zellerman, the reflection can be done alone (in the form of a journal, for example) or with a group. These discussions often include an analysis of what went right, what went wrong, and what was unexpected. The reflection sets the stage for framing the next related activity. Programs such as Experience-Based Career Education have developed detailed guides to help students process what they have learned as well as to raise questions for the future.

Other key elements of community-based learning or experiential learning include use of a mentor, student application of information collected (such as presenting it to a city council meeting), and integrating academic learning with real-world usage.

The role of mentors in community-based learning is critical. A mentor gives advice and encouragement, sharing the knowledge and wisdom of experience in a relationship that is personal and enduring (Hamilton 1990, p. 156). Mentors for youth may be described as teachers, challengers, role models, supporters, and companions. Ongoing research at Public Private Ventures indicates that the most successful mentors are those who are engaged in developmental relationships with youth and establish a strong, reliable bond through enjoyment of activities chosen together, as opposed to a prescriptive relationship in which they expected to change the youth (Morrow and Styles 1995).

The learning processes serving as a foundation for community-based learning are well grounded in cognitive research. At the heart of cognitive research is the observation that intelligence and expertise are built out of interaction with the environment, not in isolation from it. This research shows that effective learning engages both head and hand and requires both knowing and doing. In their classic book on cognitive research applications, Berryman and Bailey (1992) point out that "Passive, fragmented, and decontextualized instruction organized around generating right answers adds up to ineffective learning" (p. 68). Such decontextualized learning fails to enable students to examine the ideas they bring to the learning situation, to learn from their errors, or to look for patterns.

Educators interested in developing effective learning practices can gain important insight from looking at the nature of traditional apprenticeships. Berryman and Bailey identify six characteristics that could be applied to community-based learning:

1. Apprenticeship is a way of life and may not be recognized as a teaching effort.
2. The work to be done is the driving force.
3. There is a temporal ordering of skill acquisition from easy to more difficult.
4. Bodily performance and embodied knowledge are visible.
5. Standards of performance and evaluation of competence are implicit and often internalized by the apprentice.
6. Teachers and teaching are largely invisible.

Collins, Brown and Newman (1989) identified characteristics of ideal learning environments that are helpful to consider as we design effective community-based learning. Their model has four building blocks: content, methods, sequence, and sociology. Content involves the domain knowledge such as geography or architecture, tricks of the trade used by experts in solving problems, cognitive management strategies such as thinking and planning skills, and learning strategies such as those needed in exploring a new domain.

Teaching methods are used to help students observe, engage in, invent, or discover expert strategies in context. They include modeling, coaching, scaffolding and fading (suggestions or support initially given by the teacher), articulation to get students to identify the knowledge and problem-solving strategies they use, reflection to compare one's problem-solving strategies with those of experts, and exploration to solve problems and raise new questions.

Sequencing allows learning to be staged and involves increasing complexity of tasks and concepts needed, increasing diversity of strategies or skills used, and developing an overview before attending to details.

The sociology of learning involves reproducing the real-world environment for learning. It involves active communication with expert practitioners, intrinsic motivation for learning, cooperative learning, and competitive learning to compare the processes developed by various learners to create a product.

Frequently, a few of the above processes are used in individual community-based learning projects but seldom—if ever—are all of them systematically used in planning and carrying out learning. If they were to be used, the likelihood of more positive and consistent outcomes would increase.

Cognitive research over the past ten years has shown that the quality of cognitive performance often depends on the context in which the performance occurs. People who perform tasks well in one setting may not perform them well in other settings. Learning which is "situated" in practical, work-related contexts is both faster and more effective than learning which is purely classroom based and unrelated to the contexts in which it is to be applied (Resnick 1987).

Cognitive research is being applied today not only in schools but in industry. Erica Sorohan (1993) has identified some workplace applications of this research and illustrates five lessons learned:

- We embed learning in our individual experiences, so we learn best when we direct our own learning.

- We learn most effectively in context, so learning should be linked directly to work.
- We learn from each other, so workplaces should enable us to communicate and collaborate freely.
- We continuously create knowledge, so we need to learn how to capture what we know and share it with others.
- We learn unconsciously, so we need to learn how to recognize and question our tacit assumptions (p. 48).

The principles cited above are equally applicable to schools and workplaces.

In a study of common elements of three distinctly different types of community-based learning programs (Foxfire, EBCE, and Outward Bound), five aspects of learning strategies were identified. Common learning strategies were found to: 1) be based on an explicit theory of learning; 2) encourage learners to perform tasks normally given to adults in our society; 3) emphasize a balance of action, reflection, and application; 4) provide learning experiences that are individualized, sequential, and developmental; and 5) provide opportunities for unplanned learning from new experiences (Druian, Owens, and Owen 1995).

Given the above discussion of characteristics of effective learning, Berryman (1995) raises the question of where cognitive apprenticeship skills can best be learned—the schools or in workplaces. The answer is that they can be learned in either place if the conditions are right. To help reach a decision for a particular community, Berryman poses four useful questions (pp. 209-213):

1. Is the location organized to deliver effective and efficient learning?
2. Does the learning location reflect the knowledge demands of the workplace and the work contexts in which knowledge and skill have to be used?
3. Does the learning location deliver knowledge and skills that are broadly applicable?
4. Does the learning location blur the division between academic and vocational?

Expected Outcomes of Community-Based Learning

The outcomes of community-based learning cover the full range of knowledge, skills, and attitudes needed to be an effective citizen, worker, and lifelong learner. Articles and research reports across the various categories of community-based learning suggest five major outcome areas: 1) academic, 2) career and vocational, 3) personal-social development, 4) service and work values, and 5) understanding and use of community resources.

As Robert Blum has pointed out,

> Goals for student learning are changing. While there is still an expectation that students learn important facts, there is growing emphasis on application of facts in problem solving and relating facts to life outside the school. In addition to learning traditional subject areas, students are expected to think critically, collaborate with

> others, transition smoothly from school to work, fit into an increasingly diverse community, integrate what they learn across subjects and much more. As the content of what is to be learned changes, so must the methodologies of both learning and teaching shift (Blum 1995, p. 8).

Andrew Furco, from the Service-Learning R&D Center at the University of California at Berkeley, has presented a systematic look at the similarities and differences of service-learning and School-to-Work transition programs. He describes the intended purposes of both reforms as career development, academic development, personal development, social development, civic responsibility, and ethical development (Furco 1995).

While many community-based learning programs include academic learning as an outcome, it is usually approached as a way to reinforce the basic concepts learned in school. Motivation to learn the basics and the ability to apply them to real life situations are the unique additions of community-based learning.

While School-to-Work and service learning cover a wide spectrum of learner outcomes, a third set comes from the field of youth development. These outcomes include skill in being an active and self-directed learner, leadership, and personal and social responsibility. Zeldin (1995) and others, in their attempt to integrate School-to-Work and youth development, state that young people require opportunities and supports to achieve desirable outcomes.

Two important federal initiatives provide a useful framework for looking at the learner outcomes of community-based learning—Goals 2000 and the SCANS report. The GOALS 2000: Educate America Act calls for the development of comprehensive state education strategies that result in the attainment of the national educational goals and lifelong learning systems.

Several of the national goals are being impacted directly by community-based learning. Goal 2 states that by the year 2000, the high school graduation rate will increase to at least 90 percent. Community-based learning makes school relevant to students by connecting academic concepts to real-life applications and makes students active learners who are responsible for their own learning.

Goal 3 deals with student achievement and citizenship. It states that by the year 2000, all students will leave grades 4, 8, and 12 having demonstrated competency over challenging subject matter, including English, mathematics, science, foreign languages, civics and government, economics, arts, history, and geography, and that every school in America will ensure that all students learn to use their minds well, so they may be prepared for responsible citizenship, further learning, and productive employment in our nation's modern economy. In 1993, the nation's governors adopted service-learning as an indicator of citizenship in Goal 3.

A second curriculum framework for grouping the skills needed to be an effective worker comes from the Secretary's Commission on Achieving Necessary Skills (SCANS) in the U.S. Department of Labor. In 1993 the commission produced a useful document called *Teaching the SCANS Competencies* that illustrates how these competencies can be taught in schools and communities. The SCANS outcomes are made up of five competencies and a three-part foundation of skills and personal qualities needed for high-quality job performance. The competencies state that effective workers can productively use resources, interpersonal skills, information, systems, and technology, with each of these spelled out in greater detail. For example, interpersonal skills include working on teams, teaching others, serving customers,

leading, negotiating, and working well with people from culturally diverse backgrounds. The foundations consist of basic skills (reading, writing, mathematics, speaking, and listening), thinking skills (thinking creatively, making decisions, solving problems, visualizing, knowing how to learn, and reasoning), and personal qualities (individual responsibility, self-esteem, sociability, self-management and integrity).

A third grouping of community-based learning outcomes is a modification of the ones developed by the American Society for Training and Development (Carnevale, Gainer, and Meltzer 1990). In the ASTD book, Workplace Basics: The Essential Skills Employers Want, the authors identify seven areas: 1) learning to learn; 2) basic competencies in reading, writing, and computation; 3) communication skills of speaking and listening effectively; 4) problem solving and critical thinking; 5) managing personal and professional growth; 6) group effectiveness; and 7) influencing skills, including understanding of organizational climate and leadership. For each area, the authors describe what is intended, the theories that support it, and how it can be taught in schools and in the workplace, and then provide examples. As a result of seminar participation at the Menucha Summer Conference sponsored by the Northwest Regional Educational Laboratory (NWREL) over a three-year period, participants added three outcome areas to the ASCD list: technological literacy, social-global awareness, and general occupational skills such as safety and flexibility. For each of the ten outcome areas NWREL staff, with the input of the Menucha participants, developed a set of specific learner outcomes, school delivery strategies, and family and community-based delivery strategies (Owens 1994).

Conrad and Hedin (1989), based on a review of research in the field and various large-scale evaluations they had conducted of community-based learning programs (excluding those focused on workforce preparation), identified areas where they expected such programs to have a positive effect on youth. They grouped these outcomes under three headings: personal growth and development, intellectual development and academic learning, and social growth and development. Their specific outcomes expected are listed below.

Personal Growth and Development

- Self-esteem
- Personal efficacy (sense of worth and competence)
- Ego and moral development
- Exploration of new roles, identities, and interests
- Willingness to take risks, accept new challenges
- Taking responsibility for, accepting consequences of own actions

Intellectual Development and Academic Learning

- Higher-level thinking skills
- Content and skills directly related to service experience
- Skills in learning from experience (to observe, ask questions, apply knowledge)
- Motivation to learn and retention of knowledge
- Insight, judgment, and understanding

Social Growth and Development

- Political efficacy
- Knowledge and exploration of service-related careers
- Understanding and appreciation of, and ability to relate to, people from a wide range of

backgrounds and life situations

Whereas the outcomes listed above are expected, research results actually documenting some of them are discussed later in this synthesis.

Advantages to an Integrated Approach

Just as high schools are often justly criticized by students for compartmentalizing instruction—50 minutes of history, followed by algebra and then physical education, for example—so, too, do community-based learning programs sometimes focus too narrowly on outcomes immediately related to their funding. From an individual young person's perspective, it makes no sense to learn only leadership skills from the Boy Scouts, career development from a career exploration at a local company, and service-learning from a separate class that has students visiting residents in a nursing home. Fragmentation is undesirable whether it occurs in the school, a business, or a family.

A more integrated alternative can be found in certain mentorship approaches where a young person gets to know and trust an adult. The student might gain career knowledge by shadowing the mentor in his or her company. He or she might apply business management skills by accompanying the mentor into management meetings (where the student is expected to contribute to a problem-solving discussion and perhaps write a report that can be shared with the English teacher on how communications problems were identified and solved). The young person could also accompany and assist the mentor as he or she takes two hours from work each week to serve as a volunteer tutor in an inner-city elementary school.

From an organizational perspective, too, it is satisfying to combine outcomes of community-based learning. Businesses are often overwhelmed by frequent requests from schools to engage in many diverse activities—furnishing speakers, providing job shadowing, supervising a teacher or student intern, and volunteering time to tutor students in math. An alternative is to design ways that a business or other community organization can combine efforts. For example, while students are at a hospital to perform service-learning, they might also hear about the variety of occupations at the hospital, and do a science project in one of the laboratories.

Barriers to Community-Based Learning

With all that we know about the benefits of community-based learning, why has it affected relatively few educators and students, rather than becoming a mainstay of America's educational reform?

From an ideological perspective, many educators still maintain an older paradigm of education, in which its purpose is to impart to students the content knowledge possessed by the teacher. In such a paradigm there is no need for input from students about what is to be learned, when, where, or how. The teacher maintains control in directing education, and students are tested to determine the extent to which they have remembered what was taught. Under the new paradigm, teachers need to function more in the role of coach and mentor.

A second ideological barrier is the perception of many school and community people that the

subject matter content they learned in school should serve as the driving force in what is taught today. Failing to recognize or acknowledge the importance of applying knowledge to real-world issues, they see community-based learning as drawing students' time and attention away from the traditional curriculum content.

From a practical perspective, community-based learning requires commitment from the top as well as from dedicated teachers. Community-based learning requires time, effort, and expense. Time is needed to allow teachers to work individually with students in identifying and planning learning objectives, in arranging for involvement of community sites, and in helping students reflect on their experiences. Other practical considerations include liability coverage for times when students are outside the school building, transportation issues, and the need to schedule blocks of time so as to allow students sufficient time to get to and from their learning sites as well as to become active there. Orientation and training of both educators and community mentors are also essential.

It is necessary to spend time in creating an awareness among students, parents, educators, and community members of the purposes of community-based learning so that they don't see it as simply releasing students into the community without clear expectations of what is to occur. A final problem is the difficulty of effectively evaluating what is learned from student's experiences in community-based learning. This assessment is complicated by the fact that different students may be at the same learning site for different purposes, and that some community-based learning outcomes (identified in the prior section) are difficult to measure.

The Research Literature on Community-Based Learning

Much of the research on community-based learning has focused on individual programs and has assessed outcomes without a clear understanding of the elements that underlie a quality community-based learning experience. Just as students can fall asleep in their history class, so, too, can they waste time at a job site; not all workplace experiences lead to productive learning. This review of the literature first discusses the characteristics and quality of learning processes and then moves to attempts to document outcomes. We identify barriers faced in conducting quality research on community-based learning and describe some promising directions for the future.

Characteristics of High- Quality Learning Programs and Experiences

One attempt to identify common characteristics of programs classified under the broad heading of School-to-Work was made by the National Center for Research in Vocational Education in its publication, *Research on School-to-Work Transition Programs in the United States*. The researchers identified fourteen features and determined the relative frequency of these features in six programs: Cooperative Education, School-Based Enterprise, Tech Prep, School-to-Apprenticeship, Youth Apprenticeship, and Career Academies. The fourteen features were: 1) structured work-based learning while in school, 2) school curriculum that builds on work experience, 3) paid work experience, 4) employer-provided financial support, 5) program-arranged student work placement, 6) employer involvement in curriculum design, 7) integrated vocational and academic curriculum, 8) formal links to postsecondary education, 9) employment/college counseling, 10) pre-11th grade academic preparation, 11) pre-11th grade career exploration, 12) targeting of at-risk or non-college bound students, (13) use of outside mentors, and 14) occupational certification (Stern, et al. 1994, p. 8).

Northwest Regional Educational Laboratory staff conducted a study of over 1,000 EBCE students in 24 states to determine young people's perceptions of what characteristics of a worksite are important for quality learning (Owens 1982). In addition to open-ended questions about their experiences at learning sites, students were asked to rate the importance of each of 19 characteristics in contributing to an excellent learning opportunity. At worksites judged by students as providing rich learning experiences, they

- often learned job-specific skills including use of tools or equipment and gained specific knowledge of how the job operates through hands-on experiences
- More often described the people they worked with as helpful and friendly
- Generally worked closely with more than one person and formed a personal relationship with at least one person with whom they worked
- Reported completing tasks (judged by outside consultants) to have high or moderate levels of responsibility and were perceived to be challenging. (Owens 1982, pp. 89-90)

At a broader level, Goldberger, Kazis and O'Flanagan (1994) have identified characteristics of high-quality environments that provide structure and support for young people. They found that such worksite learning requires the following:

- Partners formally agree on the goals of the work-based program and how to achieve them.
- Student learning at the workplace progresses according to a structured plan.
- Work-based experiences promote the development of broad, transferable skills.
- School-based activities help students distill and deepen lessons of work experience.
- The program prepares students to enter the workplace.
- Ongoing support and counseling is provided for students.
- Orientation, training, and ongoing support to worksite and school staff are provided.
- Administrative structures exist to coordinate and manage the worksite component.
- Mechanisms are in place to assure the quality of students' work-based learning experiences.

Research conducted by staff at the Center for Youth Development and Policy Research has identified five key opportunities and supports needed to achieve desirable youth outcomes:

- Opportunities for active and self-directed learning
- Opportunities to take on new roles and responsibilities
- Ongoing emotional support from adults and peers
- Ongoing motivational support and high standards from adults, and

- Ongoing access to strategic support and social networks (Zeldin 1995, p. 10-11)

In the past, practitioners involved in community-based learning were often not interested in participating in program evaluation and sometimes saw it as interfering with students' progress. This attitude seems to have changed in recent years, as evaluation has shifted in emphasis toward continuous quality improvement, and as educators have become more sensitive to the needs of legislators and the public for accountability.

Other barriers to effective research and evaluation of community-based learning have been the lack of a definition and theoretical framework for much of the evaluation, differences in the quality and intensity of programs labeled School-to-Work or service-learning, the difficulty of measuring some of the skills and affective outcomes of community-based learning, and the confusion about how each program or practice may contribute to total educational reform.

Learner Outcomes

One of the earliest and most intensively evaluated School-to-Work programs has been Experience-Based Career Education. Bucknam and Brand (1983) conducted a meta-analysis of 80 evaluations of EBCE programs. They start by distinguishing EBCE from traditional work/education programs. In contrast to other programs, EBCE was found to: 1) use planned experience as a basis for learning academic subjects; 2) include career exploration and multiple employer/community site utilization as opposed to job experience at a single site; 3) expect students to take a greater role in shaping their personalized educational plans; 4) be appropriate for and used with all types of students; and 5) use community worksites for learning rather than for production purposes, so students earn academic credit rather than pay.

In terms of student learning outcomes, Bucknam and Brand found positive academic gains in 376 of 558 test administrations, including 112 where the differences were significantly positive. When compared to similar students not in EBCE, students in EBCE scored significantly higher in career-related skills, life skills, and in academic skills.

A comprehensive evaluation of the four EBCE demonstration sites was conducted over a several-year period by Educational Testing Service. This evaluation involved use of standardized tests, in-depth interviews of EBCE and control group students, survey questionnaires, and ethnographic studies by trained anthropologists. They found that EBCE students, in contrast to a control group:

- Have a knowledge of a greater number of career areas
- Know more of the personal and school-related characteristics and abilities that are necessary for entry into careers of interest
- Are more positive in their attitudes toward career planning
- Are better able to respond orally to interviewers' complex questions, and
- Had no greater gains in basic skills as measured by a standardized test (Owens 1982)

The NCRVE study of School-to-Work programs (Stern, et al. 1994) found that participation in cooperative education was associated with more positive attitudes toward school and a stronger perceived connection between school and work, but no consistent association between participation in cooperative education and subsequent success in the labor market.

The study of cooperative education by the Office of Technology Assessment (1995) found that programs nominated as being of high quality had

> participation by employers who are willing to provide training in occupations with promising career paths, screening of applicants to assure that they are prepared to meet employers' expectations, training plans with ambitious and specific learning objectives, and, for high school students, close monitoring of the worksite activities by school representatives (p. 68).

When service-learning is not mandated, the outcomes on students are generally positive. For example, Krug (1991) found significant differences in self-esteem and attitudes toward the school and community between high school students involved in a school-sponsored service-learning experience and those not involved.

Shumer (1994), in studying a community-based Job Training Partnership Act program for high school students, found that learning in the community improved attendance and school grades. This was facilitated especially by the use of adults and college students in helping students to learn.

Some of the most comprehensive evaluation of service-learning (commonly called "experiential education" in the 1980s) was conducted by Conrad and Hedin at the University of Minnesota. Their study involved 4,000 students in 33 programs and included comparison group students. The programs included volunteer service, political and social action, outdoor adventure, internships in government and business, and research in the community. The opportunities to act autonomously and to develop collegial relationships with adults were the two most powerful predictors of personal growth. In their review of others' research findings, Conrad and Hedin (1989) found that service-learning generally increases students' sense of personal and social responsibility, more positive attitudes toward adults and toward those served, enhanced self-esteem, growth in moral and ego development, and complex patterns of thought.

The research literature on required community service is mixed and generally fails to support requiring high school students to participate in it. For example, Crossman (1989) found that required community service did not produce as much improvement as voluntary service. Patterson (1987) found, in fact, that while fewer than 20 hours of required service had little impact, required participation for more than 20 hours may have a negative impact on the process of self-actualization. On the other hand, Giles and Eyler (1994) found that a required service-learning experience of limited intensity and duration has a positive impact on the development of college students: they showed a significant increase in their belief that people can make a difference, that they should be involved in community service, and in their commitment to perform volunteer service the following semester.

Systemic Approach to Community-Based Learning

A new movement has emerged recently to examine the similarities and differences between service-learning and School-to-Work and to focus on linkages. At a conference conducted in June 1995 and titled School Improvement: Strategies for Connecting Schools and Communities, the Secretary of Education, Richard Riley, and Chief Executive Officer of the Corporation for National Service, Eli Segal, signed a formal agreement to work together to link service-learning and School-to-Work. The conference was attended by state teams representing both sectors.

The Council of Chief State Schools Officers, in a 1994 memorandum, presented commonalties and a rationale for linking School-to-Work and service-learning. As quoted from Bhaerman (1995),

> Both provide environments in which students can develop various skills and competencies including those identified by the Secretary's Commission on Achieving Necessary Skill (SCANS) that are important for employment and responsible citizenship; both provide students with meaningful roles in their communities; and both foster collaboration between educators and community groups. The memorandum also presents several rationales for linking the two methodologies including the following: both have the potential to address such weaknesses as the lack of relevance of the curriculum or school experience; both can motivate students to want to learn; both can build community partnerships; and both focus on outcomes as a measure of acquired skills and knowledge. Service learning can help address issues of "scale and access" in school-to-work transition....Combining the approaches in a "learning continuum" can provide even primary grade students with opportunities to develop generic work skills at an early age (p. 2).

Service-learning also has an appeal to many parents and community groups, is relatively easy to start, and covers areas of a curriculum such as civics and government generally not addressed by School-to-Work. On the other hand, School-to-Work offers good links in the curriculum between academic and vocational education, presents a model for a four- or six-year curriculum sequence, stresses documentation of skills gained and transportable credentials, builds in adult mentorship, and has good support from the business community. By linking service-learning, School-to-Work and other forms of community-based learning, educators can build a much stronger rationale for the use of the community for learning and broaden their community support base.

Conclusions and Future Directions

This topical synthesis paper has integrated a great deal of current literature related to contextual learning theory and its application in community-based learning. While the research base on essential components of high-quality learning in the community is moderate, research to prove the validity of outcomes expected from community-based learning is still weak. New strategies, such as the application of cost-benefit analysis to service-learning, are emerging that can complement some of the qualitative research and provide support to those needing to justify the costs of such programs.

Although there are many programs that could be labeled community-based learning, few educators have yet used this term or started to sell community-based learning as a broad set of strategies to enhance educational reform. Likewise, many of the programs called service-learning or School-to-Work are very fragmented, and students often receive only minimal exposure to the array of learning potential that exists in the community. Similarly, very few community-based learning programs come close to systematically using the principles described in this synthesis for quality contextual learning.

New efforts have been implemented recently to place educators in the community for their own

learning to identify workplace applications for the subjects they teach. In some cases, companies like The Boeing Company in Seattle have provided slots for secondary and postsecondary teachers to explore worksites for the summer and to prepare lesson plans based on their new learning (Owens and Wang 1994). In other cases, teams of academic and vocational teachers have been prepared to visit companies and community agencies to identify applications of work-based tasks related to their school subject content (Stone-Ewing 1995). Educators have also accepted invitations from businesses and community agencies, including government, to participate in training in areas such as continuous quality improvement.

The examples and issues discussed in this synthesis have focused on student learning in the community. However, it is important for educators to keep abreast of workforce training that is taking place for existing workers. Such training costs billions of dollars annually. Simulations, group problem solving, and other strategies are being used effectively in many industries and may have applications for public education.

Another element related to educational reform is the transformation of some businesses into "learning organizations." Although originating in business and industry, the learning organization concept is starting to be applied in some schools, with all staff and students working in open and supportive learning environments. Drucker (1995) has written recently about the societal transformation to learning communities taking place throughout the world.

If community-based learning is to contribute its full potential to school and educational improvement, the following five changes appear needed:

1. Staff involved in School-to-Work, service-learning and other forms of community-based learning will need to collaborate with each other to present a unified message to educators and the community that there are diverse and purposeful roles community members can play in helping young people learn and mature.

2. The research on contextual learning will need to be studied more closely by educators, so that they can develop and operate community-based learning efforts that are of high quality and likely to produce significant results in students.

3. Focused research is needed on student outcomes of community-based learning programs and efforts that are based on the contextual research literature. This research needs to be implemented on a multi-year basis since the outcomes expected seldom occur in a single year.

4. Educators will continue to need greater inservice and preservice training in identifying specific ways their subject content is being used in community settings or what new content should be infused into their courses to make them more relevant to the real world. They will also need training on the philosophy and methodology to support community-based learning so as to make it an integral part of their total educational program.

5. Practitioners involved in separate School-to-Work, service-learning, and youth development programs need to come together to identify common ground, share their expertise, and learn from each other's efforts.

Legislators and policy makers also have a major role to play in fostering integration of community-based learning by broadening the scope of expected outcomes. Michele Cahill (1993), in reporting the consensus of the New York City Youth Employment Consortium,

stated,

> For programs to be effective in positioning participants on pathways to success they have to go beyond a narrow focus on acquisition of job skills or even behavioral changes... Youth must meet needs and build competencies in many areas of their lives at the same time as they are acquiring vocational skill (Cited by Zeldin 1995, p. 9).

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> Discusses the background of efforts to integrate academic and vocational education, a description of eight approaches to integration (with particular attention to the academy model, career pathways, magnet schools, and senior projects), and the pedagogy of curriculum integration. The new pedagogy is especially geared to teaching problem solving, higher-order reasoning, and teamwork skills—which are all being demanded by today's employers.

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Identifies the commonalties and differences between School-to-Work and Youth

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