

# Service-Learning as it Relates to the Attainment of Employability Skills for Adolescents in Maryland

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## Abstract

*This study describes the relationship between structured service-learning, through Maryland's replication models, and the attainment of employability skills for adolescents. Employability skills were measured against competencies from the Secretary's Commission on Attaining Necessary Skills. Findings indicate that employability skills were evident in the most frequently used models. Implications for the expansion of service-learning models, teacher training in colleges and universities, and linkages with businesses are discussed.*

As the United States is losing its edge in the global work market, American companies are examining ways to become more efficient and profitable. "Our education system—set up to prepare students for college—fails to adequately educate as workers and citizens the 75 percent of students who don't obtain a college degree. The result: a threat to America's economic leadership and an unproductive, precarious future for far too many of its youth" (Conklin 1994). Employers want job candidates to possess employability skills prior to starting a job. These universal skills should be transferable from one job to the next. In 1990, the United States Secretary of State appointed a commission to study the skills people need to succeed in the world of work. The skills and competencies listed in the Secretary's Commission on Achieving Necessary Skills (SCANS) are the skills that many employers expect employees to acquire before entering the work force. Although employers may be willing to provide on-the-job training, they expect job candidates to possess specific characteristics that will enhance employees' chances for success in the workplace (Busse 1992).

Surveys and studies have established that the majority of people who were fired from a job lacked the basic social skills that often determine job success. The Center for Public Resources found that 90 percent of people who had been fired were discharged because of poor attitudes, inappropriate behavior, and difficulties with interpersonal relationships, not because of deficiencies in ability (Demoss 1995). According to the American Youth Policy Forum (1995), adolescents encounter difficulties entering the job market and maintaining employment due to poor job skills, lack of commitment to the job, and an inability to relate to adults in the workplace. They experience higher unemployment rates, earn lower wages, and spend more time in and out of employment than do adults.

Employers express that they are more willing to work with employees who got along with co-workers, accepted constructive criticism, followed direction, and showed initiative, than those employees who lacked these essential employability skills, though they may have more technical skills. As a result of the School-to-Work Opportunities Act of 1990, businesses and schools began to collaborate on methods that would enable students to gain the necessary skills to enter the world of work. Task forces proposed innovative partnership program models consisting of business internships, youth apprenticeships, work-study programs, Technical-Preparation initiatives between high schools and colleges, and youth service.

Service-learning as an instructional method facilitates adolescents to engage in real-life settings where they can apply academic knowledge and previous experience to meet real community needs. Service-learning helps students understand the relevance of their schoolwork within the reality of the world around them. "Through service learning, young people help others in their community while also enhancing their own education" (Everyone Wins 1995).

Service-learning programs for adolescents are widespread throughout the United States. Through studies addressing service-learning, researchers have documented the positive psychological, social, and intellectual influences on student development. The most consistent findings from research studies have shown a heightened sense of personal and social responsibility, more positive attitudes toward adults and school, an increase in school attendance and academic performance, and growth in self-esteem. These findings have awakened educators interested in school reform, because service-learning offers an alternative to traditional education methods and is compatible with school-to-work initiatives (Lankard 1995).

Educators suggest that service-learning could give adolescents experiences that engage them in those competencies identified as important for employability. Hamilton and Hamilton (1994) suggest that service-learning gives young people a work-like experience, although it is unpaid. They believe that by connecting school more closely to employment, the educational quality of the American work force would be enhanced. Kazis (1995), of the American Youth Policy Forum, suggests that service-learning is a strategy that allows adolescents to enter positions of responsibility at work and "smooth some of the inevitable cyclical shifts in employer demand for entry level workers."

If businesses are asking schools to educate our future work force with the necessary tools for success, schools should access curriculums and implement programs to address this need. Businesses are beginning to build collaborative relationships with schools to give students the opportunities to explore career options, network with workers in a field, and to gain experience with the necessary skills to succeed as team players. Service-learning is yet another opportunity for community organizations to join with schools to help students gain experiences that will benefit their employment future and to help businesses gain workers who can compete in a global economy.

The Council of Chief State School Officers (CCSSO), a nationwide nonprofit organization of public officials who head departments of elementary and secondary education in every state, suggests that “service learning experiences early and regularly in a student’s education help to foster the development of important skills and positive attitudes toward work and the community” (1997). CCSSO’s 1997 report has found a connection between the Secretary’s Commission on Achieving Necessary Skills (SCANS) competencies and service-learning competencies in that most of the skills and competencies in the SCANS report are comparable to the skills and competencies that students can develop through quality service-learning experiences. The CCSSO study explored the desired outcomes of employers in the SCANS competencies and compared them to service-learning outcomes within specific service-learning models implemented in the state of Maryland.

## **Review of the Literature**

Many claims have been made about the impact of service-learning on participants, programs, and communities. Widespread programs for adolescent participation have been initiated throughout the United States, as educators realize the positive influences on psychological, social, and intellectual development including attitudes, social behavior, civic awareness and responsibility, personal growth, academic learning, and work skills. Quantitative and qualitative studies show a general positive trend of social, personal, and academic development fostered by service-learning (Bhaerman 1995; Conrad and Hedin 1991; Shumer 1998). Academic learning increased in the areas of knowledge gains, problem solving, open-mindedness, and critical thinking. Social development gains were demonstrated through social responsibility, social competence, increased positive attitudes toward adults, and decreased behavioral difficulties. Personal development showed its effects in increased self-esteem and a greater sense of self-determination. Alt and Medrich (1994) claim “...that hands-on-learning paired with classroom learning will improve students’ attitudes toward community and local government.” Shumer (1998) stated that service-learning prepares “citizens for a civil society.” Additional studies show that a primary benefit of service-learning is a sense of empowerment, ownership, and self-esteem gained through decision-making skills (Rural Clearinghouse Digest 1995).

Educators engaged in school reform suggest that service-learning offers an alternative to traditional education methods that is compatible with school-to-work initiatives (Lankard 1995). The three basic program components of school-to-work transition are school-based learning, work-based learning, and connecting activities (Bhaerman 1995; Kazis and Barton 1993; School-to-Work Opportunities Act 1993). The school-based component establishes guidelines set by the Goals 2000: Educate America Act and the No Child Left Behind Act of 2001, by integrating academic and vocational learning within the curriculum; providing career exploration to help students identify, select, or consider their goals, interests, and career majors; and creating partnerships between secondary and post-secondary institutions to help students advance their academic and vocational skills. Work-based learning experiences extend the academic and occupational instruction of schools by offering opportunities for students to learn

the use of equipment in the workplace, introducing students to the norms of the adult work environment, and giving them chances to test their capabilities in the workplace (Learning to Work 1995). "Connecting activities are designed to assure that the school- and work-based components of the program work smoothly together to achieve the School-to-Work Act's desired objectives" (Brustein and Mahler 1994).

## **Federal and State Legislation Related to Service-Learning**

Federal laws that have been enacted that comprise service-learning issues include:

- P. L. 101-610: Serve-America: The Community Service, Schools and Service Learning Act of 1990
- P. L. 103-82: National and Community Service Trust Act of 1993
- Goals 2000: Educate America Act of 1994
- P. L. 103-239: School-to-Work Opportunities Act of 1994
- P. L. 101-476: Individuals with Disabilities Education Act of 1995 and the Amendments of 1997
- P. L. 101-392: Carl D. Perkins Vocational Education and Applied Technology Act of 1990 and the Amendments of 1997
- P. L. 107-110: No Child Left Behind Act of 2001

Efforts to stimulate youth service on the federal level have turned into concrete programs and policies in several states. Since the initiation of Serve-America in 1990, most states have established some variation of service-learning for their middle school and high school students. The Council of Chief State School Officers (CCSSO) established a task force to assist state school systems to develop effective service-learning programs (Council of Chief State School Officers 1989). Each state has a variety of programs that include community-based and school-based partnerships, teacher training, curricula development to include service-learning goals within academic content areas, and vocational education models to prepare students for the work world. Only Maryland and the District of Columbia require service-learning as part of their high school graduation requirements. Their comprehensive plans require all students to participate in youth service activities and all educators to integrate service-learning into the curriculum.

## **Outcomes of Service-Learning**

**Social Skills** Employers consider these skills the "soft skills" of employment, or those skills that can be transferred to any work situation, regardless of the required technical skills (Lankard 1990). Studies have demonstrated that students who participate in service-learning projects increase social responsibility, enjoy meeting new people, find acceptance in the adult world, and assume greater responsibility in working with others (Tuck 1992; Williams 1993; Middleton 1993; Budin 1993). Hamilton's 1980 study of participating students in community service projects showed an increase in personal and social responsibility for participants in 21 of 28 programs.

**Personal Empowerment** Students need the skills to decide what educational and vocational needs are important to them, how their strengths and weaknesses affect their ability to meet those needs, and how to set and monitor goals to meet those needs. Self-motivation, self-determination, and self-advocacy are strategies that help students make these decisions that are encompassed in personal empowerment. Conrad and Hedin (1989) state that growth in moral and ego development results from service programs. In Crytzer's 1993 study, the emphasis is placed on the importance of each student using his or her strength to accomplish tasks and assess his or her own progress through written reflections. The students in Budin's Philanthropy Project (1993) reported that they felt better about themselves, learned to make decisions, and assumed greater responsibilities. Yoder et al. noted in their service-learning projects that students who participated in service-learning experiences seemed more self-assured (1996). These results are critical because employers look for employees with these human relation qualities of personal empowerment and public relations. They are often the ones who receive promotions, raises, and merit awards.

**Learning Experiences** According to Barber (1992), education-based community service brings the lessons of service into the classroom, even as they bring the lessons of the classroom into the community. Hamilton's study (1980) showed that students who were involved in the experiential learning/service program increased their school attendance. "The overall goal" in Crytzer's community service project was "to help students develop real-life skills that will lead them to become life-long learners" (1993). School curricula connected to service-learning projects teach students to become life-long learners. Employers search for employees who are open to learning, appreciate the learning process, and are willing to share what they have learned with others.

## **Outcomes of Work-Based Learning**

**Employability Skills** Designing instructional approaches and strategies to better prepare students for competitive employment and to assist students in obtaining and retaining jobs is a challenge. Connecting school more closely to employment will provide incentives for youth to gain academic competence and to behave in a socially responsible manner. "Community service gives young people experience that is like work even though it is unpaid..." (Hamilton and Hamilton 1994).

Many employers believe that employability skills will enable an individual to acquire and keep a job. By addressing employability skill development concurrently with communication, mathematics, science, and vocational courses, the content can be analyzed and practiced daily so that students demonstrate behaviors that will enhance their job performance and retention (Lankard 1990). A survey sponsored by the National Association of Manufacturers in 1990 found that employers want schools to take more responsibility for students' employability skill development. The Secretary's Commission on Achieving Necessary Skills (SCANS) was established to determine the skills people need to succeed in the world of work. The Commission, composed of thirty representatives of education, business, labor, and state government, had the task of defining the common skills that constitute job readiness within the global economy.

Their final report identified five specific competencies that map out the outcomes required of high-performance workers. These include the ability to manage resources, interpersonal skills needed to work amicably and productively with others, the ability to acquire and use information, skills needed to master complex systems, and skills needed to work with technology.

The Council of Chief State School Officers, a nationwide nonprofit organization made up of public officials who head education departments in all fifty states, the District of Columbia, the Department of Defense Dependents schools, and five extra-state jurisdictions, has made a connection between school-to-work programs and service learning. The first four SCANS' competencies correlate highly with the CCSSO's service-learning competencies which include: the ability to use resources of time, material, and human performance; personal growth and development; the ability to acquire and use information; and skills to understand and respond to complex systems (Connecting Service Learning 1997). Through both paths, "...students engage in learning experiences that help develop organizational, team, and problem-solving skills as well as the competencies and foundation skills identified as important for employability and responsible citizenship" (Connecting Service Learning 1997). The CCSSO has included service-learning in its policy reference document as one of the strategies to help students transition from school to employment.

**Social Skills** A study conducted by the Technical Related Academic Career Competencies (TRACC) Program in Virginia discovered that employers were willing to work with employees who were slow with technical skills or who needed some academic review, but they were not willing to continue to employ individuals who could not get along with co-workers, accept constructive criticism, or follow directions. As a result of the employer survey, TRACC developed a Workplace Social Skills Training Program that focused on seven major areas of social skills development: verbal communication, nonverbal communication, social awareness, social problem solving, compliance, cooperation, and civility. In some cases, research shows that employers are using the term social skills synonymously with employability skills. In 1979, Rusch defined his notion of social-vocational survival skills as behaviors that increase the likelihood of successful competitive employment in any vocational setting (Warger 1990).

## **Paradigm of Service-Learning and Employment**

Employability skills can be developed in a variety of ways. "One is through involvement with student and community organizations" (Indiana University 1996). Another way is to give students the opportunity to explore possible careers while learning general work and job-specific skills through community-based activities (Choy, Alt, and Henke 1994). Hamilton suggested (1980) that unpaid involvement in the community appeared to offer many of the opportunities for interacting with others, gaining knowledge and skills, developing more mature attitudes, and accomplishing worthwhile objectives that most youth jobs lack. Through service-learning, students are able to make a meaningful link between daily activities and work skills (Yoder et

al. 1996). "As proponents of school and work connections," Hamilton and Hamilton (1994) believe that "all young people should engage in community service" so that they may learn "specific work-related skills." In this highly technological world, employers look for students who have the skills to succeed and "look favorably upon a student's work experience in community service" (Pardo 1997).

Numerous articles and studies have advocated service-learning in the context of civic responsibility, connections with school-based education, and the enhancement of self-esteem. The qualitative evidence strongly suggests that service-learning is a valuable experience for adolescents. The quantitative data suggest that service-learning has a positive effect on intellectual, psychological, and social development in adolescents. Advocates and researchers of service-learning allude to the value of the unpaid service experience as an introduction to the world of work. No studies have been initiated to discover the relationship between service-learning and employment.

## **Description of the Methodology**

The purpose of this study was to describe the relationship between structured service-learning outcomes, through Maryland's replication models, and the attainment of employability skills for adolescents. The study was designed to answer the following research questions:

- What are the service-learning activities adolescents are involved with in Maryland?
- What are the specified outcomes for adolescents within each service-learning replication model?
- How does each model rate in terms of the attainment of employability skills?
- Which employability skills do service-learning coordinators report that students are accomplishing?

### **a. Content Analysis**

A content analysis of each of the ten replication models was performed to determine the outcomes for each model. The models were documented materials, similar to curriculum guides, which were designed by teachers. The researcher reviewed the individual lesson objectives and categorized them thematically into school-based and community-based objectives. Consideration was given to the philosophies and theories that support service-learning, including work-based learning, experiential learning, and community-based learning.

## **b. Survey**

A survey was conducted of eighty-one service-learning coordinators, in all Maryland counties, who used one of ten replication models. The purpose of the survey was to assess the extent to which the service-learning coordinators held similar beliefs or shared specific constructs about service-learning replication models. The survey consisted of twenty-seven statements, using a four point Likert-type scale, with a range from (1) Most Likely to (4) Least Likely. A demographic information section concluded the instrument, requesting information that included: school type, grade level, length of time as a teacher and service-learning coordinator, type of teacher, general student population, percentage of student population with disabilities, replication model used, community participant, and types of reflection activities. The last part of the demographic section asked the respondent to describe in detail the specific service-learning activities he or she coordinated.

## **c. Key Informant Rubric**

Using a rubric that defined the criteria for each SCANS competency, a panel of experts determined which competencies were represented within the four most frequently used models. The rubric used a three point discrete rating system of 1 = high quality of evidence present, 2 = medium quality of evidence present, or 3 = low quality of evidence present. The key informant panel was comprised of five educators in the state of Maryland, representing vocational education, transition, special education, and work-study curriculums. All the key informants were familiar with the SCANS report.

## **d. General Characteristics and Location of the Study Population**

During the 1998–1999 school year, the state of Maryland had eighty-one service-learning coordinators who were using the replication models as structured service-learning activities. The service-learning coordinators included teachers, guidance counselors, and administrators in elementary, middle, and high schools, though most were located in the secondary schools. They taught a broad spectrum of subject areas: English, reading, science, math, social studies, history, foreign language, and home economics. Participating service-learning coordinators were from fifty-seven different schools in nineteen of twenty-four school districts in Maryland. Of these schools, there were thirty-five middle schools, eighteen high schools, one junior/senior high school, one alternative school, one learning center, and one academy.

The ten replication Model Programs shared several key characteristics. All Model Programs met the “Seven Best Practices of School-Based Service-Learning,” met the standards for credit-bearing service-learning in the state, were replicable and modifiable to different grade and ability levels, were an example of service-learning that is “infused” into the curriculum over a sustained period of time, and provided teachers with an opportunity to integrate performance-based assessment and other education reform initiatives with service to the community and citizenship education (Maryland Student Service Alliance 1997).

# Data Analysis Procedures

## a. Cross-Sectional Surveys

*Question 1: What are the service-learning activities adolescents are involved with in Maryland?*

The researcher reviewed the responses of the service-learning coordinators on the demographic information to determine the types of service-learning in which students were involved. The responses were listed and categorized by predominant themes. An effort was made to match the reported activities with the model objectives; therefore, similar themes were anticipated. The predominant themes resulted in school-based and community-based activities.

*Question 4: Which employability skills do service-learning coordinators report that students are accomplishing?*

- Within each replication model, which employability skills are most represented?
- How do the models compare on the attainment of employability skills?
- What is the frequency of the attainment of employability skills within each competency?

Data collected from the returned surveys were coded numerically. Percentages of employability skills were categorized into high, medium, and low evidence, based on mean scores. Each competency was itemized according to specific skills.

## b. Content Analysis

*Question 2: What are the specified outcomes for adolescents within each service-learning replication model?*

- What are the outcomes of each replication model?
- How do the outcomes compare to the reported activities?
- How do the outcomes of each replication model compare to each other?

The researcher reviewed the documentation for each replication model, and then listed the specific outcomes for each model. Categories of school-based outcomes and community-based outcomes were used to characterize the predominant themes of each model. Outcomes were compared with the reported list of service-learning activities, which were categorized by the same themes. The researcher analyzed the data for compatibility of the objectives and reported activities, looking for direct matches between the activities and the model objectives.

### c. Key Informant Survey

*Question 3: How does each model rate in terms of the attainment of employability skills?*

- a) Within each replication model, which employability skills are most frequently emphasized?
- b) How do the models compare on the attainment of employability skills?

Data collected from the key informants were coded numerically. Percentages of employability skills were categorized into high, medium, and low evidence, based on mean scores.

### d. Validity and Reliability

The SCANS competencies were used to formulate the questions in the cross-sectional survey and the key informant rubric. Two different groups of people assessed the replication models: service-learning coordinators and experts in work-related curriculums.

## Discussion of Results

The SCANS competencies that were measured throughout all the models included Resources, Information, Interpersonal, and Systems competencies. The Resource competency involves: selecting and prioritizing goals, preparing and making adjustments to a budget, organizing and allocating time to accomplish activities, using materials efficiently, providing feedback to others, keeping records, and following schedules. The Information competency comprises: organizing, processing, and interpreting information. The Interpersonal competency includes: participating as team members, persuading others through verbal communication, working with diverse populations, negotiating toward an agreement, teaching others new skills, justifying a position, and satisfying customers' expectations. The Systems competency consists of: predicting impacts on systems' operations; suggesting modifications to existing systems; operating effectively within social, organizational, and technological systems; distinguishing trends in performance; and developing alternative systems to improve performance. Evidence of each competency within the replication models varied, according to the model, as reported by the key informants and the service-learning coordinators.

**Adopt a Wetland.** The Resources competency scored the highest evidence of employability skills with 25 percent and 75 percent in the high and medium ranges, as rated by the key informants. The service-learning coordinators agreed with this, but to a lesser extent with 80 percent and 20 percent in the medium and low ranges. Since the students wrote grants to solicit funds from local leaders and environmental agencies, they had to plan, justify, and keep track of their activities for reporting purposes. They prioritized their goals to meet budgetary constraints, adjusted the budget to meet their project needs, and used materials efficiently to save money.

The key informants rated the Systems competency with the least evidence of employability skills with 33 percent and 67 percent in the medium and low ranges; however, the service-learning coordinators saw greater evidence with 100 percent in the medium range. The students worked within the organizational system of a school and the surrounding community. Students were given few opportunities to influence a district school system, yet through projects linked to the community they had an impact on their individual school and community. The difference between the two ratings may be in the perspective of the two groups of what constitutes a system, working in a system, and the impact students have on that system.

The Interpersonal competency was rated similarly by the key informants and coordinators in the high to medium range, though the key informants saw a little less evidence of skills than the coordinators. The students worked on each project in diverse teams, justified their need for money to the grant makers, satisfied the customers' expectations by attaining their proposed goals, persuaded and/or negotiated with the local leaders and environmental agencies about their environmental projects, and taught other students new skills related to their acquired knowledge. During the reflection, the students discussed with the group or wrote in their journals about how their experiences increased their skills and enhanced their feelings of empowerment in the community.

Both groups rated the Information competency in the medium range. One specific skill includes processing information on a computer. This skill may be determined by the school's access to computers and how consistently they are available to students.

**Stream Restoration.** The most significant differences between the key informants and the service-learning coordinators were found in the Stream Restoration model. Both the key informants and the coordinators viewed the Information competency in the medium range, though the coordinators saw less evidence of these skills. The objectives of conducting experiments, predicting stream quality, comparing predictions to actual findings, and recording data with graphs and organizers fit into this competency, as do the reported activities of collecting and analyzing data.

The key informants rated the Resources competency with 75 percent in the medium range. The service-learning coordinators rated this competency as showing the highest evidence of employability skills, with 50 percent in both the high and medium. The students budgeted money for a project, provided feedback through analysis of results, and kept records through data collection. As students wrote proposals, they prioritized their goals and made schedules to accomplish their goals. The coordinators stated that "reports are analyzed in class and sent to the Chesapeake Bay Foundation for their records" and "students...design, budget and apply for grant money...." In addition, when students are teaching younger children, this is another form of feedback.

Both the key informants and the coordinators rated the Interpersonal competency in the medium range. Looking at the objectives and lesson plans, the key informants may have considered the model more as a science curriculum, rather than a service-learning

model. There was little evidence of the preparation and reflection elements of service-learning in the objectives and if the lesson plans seemed an extension of the science curriculum, then the potential to learn interpersonal skills may not have been evident. The coordinators contrasted the time on the community site in which students worked together to build an outdoor classroom. In addition to working together as a team, students spent time teaching younger children and satisfying environmental agencies' expectations by carrying out the goals they wrote in their proposals.

According to the service-learning coordinators, the Systems competency was rated as representing the least employability skills, with 71 percent in the low range. The key informants rated this competency with 67 percent in the medium range. Students are part of the greater school system and have few opportunities to influence that system. The limited rating in this competency may occur when students are teaching younger children, since two small schools within the school district must get together to provide this opportunity.

**Serving Seniors.** The Information competency scored the highest evidence of employability skills with 100 percent in the medium range, as rated by the key informants. The service-learning coordinators scored this same competency with 67 percent in the medium range. None of the objectives directly relate to the skills in this competency, but the objective in which students list forms of communication and their effects may indirectly relate to interpreting verbal and non-verbal information. In addition, students organized information when they prepared for meals, parties, or performances.

According to the key informants, the Systems competency rated the lowest evidence of employability skills, with 67 percent and 33 percent in the low and medium range, respectively. The objectives did not show any links with these skills and they were unaware of the amount of time students would spend in the community.

In contrast to the key informants' rating, the service-learning coordinators rated the Systems competency as the highest, with 100 percent in the medium range. The students spent a significant amount of time in the residential facility in which they were part of an organizational and social system. In their experiences, they were able to observe the business of an established organizational system, and within that system they became a part of the social system. After working within the organization for an average of 31.3 hours over 10.7 trips, the students could probably predict some of the impacts on the system's day to day operations and make some suggestions to improve or change the existing organizational or social system. These predictions and suggestions may have been discussed during their reflections, even if they never actually made formal proposals to the directors of the facilities.

According to both groups, the Resources competency balanced closely within the medium range. Within this competency, students provided feedback by helping residents with art projects and followed the facility's schedule to accomplish their activities and projects. Most of the skills in the Interpersonal competency fell in the

medium range. Students worked with staff and residents from diverse backgrounds, taught residents new skills or retaught previously learned skills, and satisfied the residents' and staff's expectations. It is interesting that the key informants saw good potential for employability skills within the objectives, outcomes, and lesson plans and the coordinators felt that students were learning these skills. This is a positive finding, as the Serving Seniors model is a people-oriented model in which strong interpersonal skills are in high demand.

**Kids Sew for Kids.** The Information competency scored the highest evidence of employability skills with 100 percent in the medium range, as rated by the key informants. The service-learning coordinators rated this same competency with 67 percent in the medium range. The objectives appeared to address individual students making projects as in a Home Economics or Family Life course, when in fact the coordinators spoke about the students as a total group working toward a common goal, which was the service-learning experience. Students organized and interpreted written directions in order to prepare and sew a project. They also organized written information when writing letters to recipients or devising a message about community service. According to the key informants, these skills were evident within the model objectives, outcomes, lesson plans, and reported activities.

Though the key informants rate the Resources competency as having low to medium evidence of employability skills, the service-learning coordinators rated this competency as representing the most employability skills, with 40 percent and 60 percent in the high and medium ranges, respectively. The students participating in the Kids Sew for Kids model sewed items and prepared meals. As students selected their projects, they followed a specific schedule to complete the project. They had to pace themselves on the various tasks so they could prioritize their tasks, organize their time, and allocate the appropriate amount of time to each task. Since they were using consumable materials, they had to use them efficiently in order not to waste them.

Raising funds for local children's groups was another reported activity in this model. Students had to organize their time to collect the money and keep records pertaining to the collected funds. The skills in the Resources competency were well represented in the reported activities.

The key informants rated the Interpersonal competency in the low to medium range for employability skills, but the service-learning coordinators rated this competency with 29 percent and 71 percent in the high and medium ranges, respectively. Though the students worked on individual projects, they worked within the total group sharing supplies and equipment, and therefore had to participate as members of a team, sometimes negotiating a turn to use required items. Those students who were able to learn a skill quickly would have the chance to teach others. When the students went into the community to deliver the products, they met and spent time with people from diverse social, ethnic, and economic backgrounds. Although one experience hardly constitutes the mastery of this skill, it is at least a beginning and should be followed

with other similar experiences. If the community experience were followed by a reflection, which involved individual thoughts as well as group discussion, then the students could integrate this experience with their prior knowledge of people in crisis.

Home Economics and Family Life are courses that teach life skills in the context of simulated life experiences such as sewing, cooking, raising children, and budgeting for a household. Even though students spent little time in the community, they were able to learn employability skills within the Resources and Interpersonal competencies by participating in hands-on activities that integrated real-life experiences with a social service component.

## **Implications for Service-Learning Programs**

This study identified several implications for service-learning programming, which included the following:

1. Replicate this study within other urban school districts that use curriculum based service-learning models. The results of this study should be used to (a) contribute to the development of service-learning models that reflect employability skills; (b) generate more thought about the connection between academic learning and community-based and work-based experiences; and (c) create more educational programs that support students' transition to the work world. This study focused on the employability skills, measured by the SCANS competencies that were gained through specific service-learning replication models. Other jurisdictions throughout the United States should use the SCANS competencies to measure employability skills. Since many school systems are experimenting with service-learning models, further research should focus on the types of employability skills gained in those models. If their results are similar to this study, service-learning proponents should push for service-learning to become part of transition planning for adolescents in high school. Since the SCANS report recommended that employability skills become a part of the school curriculum, it makes sense to incorporate these skills into other service-learning models.
2. Begin service-learning activities at the middle school level and continue implementing different models through high school and into post-secondary institutions. As students advance through the grade levels their employability skills should increase as their academic skills increase. Students in colleges or technical institutions will become part of our future workforce; therefore, post-secondary institutions should consider the requirement of a service-learning course. Students would design and implement a direct community service, an indirect community service, or an advocacy service by choosing specific academic knowledge that links to a community experience. For example, a sociology student may link knowledge from coursework to working directly with a homeless shelter or

soup kitchen; a political science major may link academic coursework to an advocacy project by preparing and disseminating informational literature about a current controversial issue; or a construction apprentice may link his or her knowledge to building playground equipment for a local school. Awareness of the SCANS competencies and documented psychological benefits of service-learning such as civic awareness, social responsibility, empowerment, and increased self-esteem would be incorporated into the design of the service-learning project. Planning, implementation, and evaluation of the project would be completed within a designated grading period.

3. Train potential teachers at the college level to link academic learning with experiential service-learning and employability skills. If educators are serious about linking academic learning in school to the world of work, then reform must start at the top by educating future teachers. Experiential learning, community-based learning, and work-based learning should be integral concepts within teacher preparation coursework. Future teachers should be challenged to build the SCANS competencies into their teaching strategies, learn how to make contacts and linkages with businesses and organizations, and forge programs that incorporate SCANS, service-learning, and content curricula. Within colleges of education, student interns should be required to design and implement replication models, in a chosen secondary grade level. Using the SCANS competencies, interns would choose the specific employability skills that may be developmentally appropriate for the grade level of the students with whom they are working.
4. Provide ongoing professional development for teachers to learn the connection between service and learning; and the connection between service-learning and employability skills. Service-learning is still an unknown concept to many teachers. Though service-learning is mandated by the state of Maryland, few teachers have opted to use the formal service-learning models. Lankard, in 1990, believed that if employability skill development were taught concurrently with the academic subjects, students would “demonstrate behaviors that will enhance their job performance....” This study demonstrated that most teachers involved in service-learning are senior teachers, having taught for ten or more years. Many teachers are unaware of the potential for service-learning to enhance academic achievement and employability skills. In an effort to increase the pool of teachers using service-learning models, school systems should provide training through workshops to raise the level of awareness about the benefits of service-learning and to assist interested teachers in linking service to their content curricula or extra-curricular activities.

According to this research study, the employability skills that were taught in the service-learning models were based on the SCANS competencies. The Council of Chief State School Officers (CCSSO), in 1997, suggested that students who engaged in service-learning would learn competencies

and foundation skills for employability and responsible citizenship. Teachers need training in the SCANS competencies. Teachers should know which skills each competency encompasses, how these skills are related to service-learning, and how the competencies can be incorporated into their existing curricula. Certified teachers are required to take courses to keep their licensure or advanced professional status; therefore, this is a golden opportunity for colleges and universities to provide coursework for ongoing professional development.

5. Encourage partnerships between local businesses or community organizations and colleges or universities. Employers are the primary benefactors of successful students; therefore the business community has a stake in our educational system to teach the skills needed for the world of work. John Dewey once stated, "The only adequate training for occupations is training through occupations." By the time most students enter college, they have had numerous jobs, working during summers or after school. A minority of students who enter college have had the opportunity to participate in work-study programs, so they have not had coursework related to the acquisition of employability skills. Employers' willingness to involve students in their businesses can help students develop important skills for employment and form positive attitudes about work. As more partnerships are established with the business community, employers may see students as additional resources to help solve problems in the larger community. Through service-learning, employers can have a greater impact on the linkages between academic learning and experiential learning.

## Summary

Only Maryland and the District of Columbia require service-learning in schools, although many other school districts and states are also implementing service-learning at various levels. This study showed evidence of employability skills in the content of replication models designed by the state of Maryland and in the outcomes of the models, as reported by the service-learning coordinators. This was only a first step in ascertaining the existence of employability skills within service-learning activities. As interest in school-to-work transition programs for all students increases, the role of service-learning initiatives will expand. Postsecondary institutions will increasingly need to be prepared to enroll and meet the needs of students who have had these active, community-based learning experiences. As a nation we have the responsibility to determine how well our children are measuring up to the standards expected by employers. As educators, parents, and citizens we must ensure that the graduates in the twenty-first century are prepared to enter the global work market with the positive work experiences to become competent leaders and productive workers.

# SCANS Competencies

## RESOURCES

### **Allocates Time.**

Selects relevant, goal-related activities, ranks them in order of importance, allocates time to activities, and understands, prepares, and follows schedules.

### **Allocates Money.**

Uses or prepares budgets, including making cost and revenue forecasts, keeps detailed records to track budget performance, and makes appropriate adjustments.

### **Allocates Material and Facility Resources.**

Acquires, stores, and distributes materials, supplies, parts, equipment, space, or final products in order to make the best use of them.

### **Allocates Human Resources.**

Assesses knowledge and skills and distributes work accordingly, evaluates performance, and provides feedback.

## INTERPERSONAL

### **Participates as a Member of a Team.**

Works cooperatively with others and contributes to group with ideas, suggestions, and effort.

### **Teaches Others.**

Helps others learn.

### **Serves Clients/Customers.**

Works and Communicates with clients and customers to satisfy their expectations.

### **Exercises Leadership.**

Communicates thoughts, feelings, and ideas to justify a position, encourages, persuades, convinces, or otherwise motivates an individual or groups, including responsibly challenging existing procedures, policies, or authority.

### **Negotiates.**

Works toward an agreement that may involve exchanging specific resources or resolving divergent interests.

### **Works with Cultural Diversity.**

Works well with men and women and with a variety of ethnic, social, or educational backgrounds.

## INFORMATION

### **Acquires and Evaluates Information.**

Identifies need for data, obtains it from existing sources or creates it, and evaluates its relevance and accuracy.

### **Organizes and Maintains Information.**

Organizes, processes, and maintains written or computerized records and other forms of information in a systematic fashion.

### **Interprets and Communicates Information.**

Selects and analyzes information and communicates the results to others using oral, written, graphic, pictorial, or multi-media methods.

### **Uses Computers to Process Information.**

Employs computers to acquire, organize, analyze, and communicate information.

## **SYSTEMS**

### **Understands Systems.**

Knows how social, organizational, and technological systems work and operates effectively within them.

### **Monitors and Corrects Performance.**

Distinguishes trends, predicts impact of actions on system operations, diagnoses deviations in the function of a system/organization, and takes necessary action to correct performance.

### **Improves and Designs Systems.**

Makes suggestions to modify existing systems to improve products or services, and develops new or alternative systems.

## **TECHNOLOGY**

### **Selects Technology.**

Judges which set of procedures, tools, or machines, including computers and their programs, will produce the desired results.

### **Applies Technology to Task.**

Understands the overall intent and the proper procedures for setting up and operating machines, including computers and their programming systems.

### **Maintains and Troubleshoots Technology.**

Prevents, identifies, or solves problems in machines, computers, and other technologies.

Source: *What Work Requires of Schools: A SCANS Report for America 2000*, June 1991, U.S. Department of Labor.

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