

Winter 2012

## Developmental Education Initiative Study

ADRIENNE GLANDON

Research indicates that students are less likely to persist in postsecondary education the longer they are in remedial courses. Often, students drop out when they are not progressing toward credit-bearing courses that lead to an eventual degree or certificate attainment. Educational providers in Ohio are working together to create a seamless system that ensures a student's success.

The staff members at the Center on Education and Training for Employment (CETE), in cooperation with the Ohio Board of Regents, are studying these partnerships in Ohio. Adult Basic and Literacy Education (ABLE) providers and Community Colleges are working together as a part of the Developmental Education Initiative (ABLE-CC DEI). The primary objectives of the study will be to:

- understand principles of solid partnerships;
- develop guidance for establishing and maintaining partnerships;
- highlight ways to expand partnerships; and
- recommend policy changes.

Staff members are currently collecting information using multiple methods. Those methods include literature reviews, review of program data (e.g., student enrollment, assessment scores), surveys, telephone interviews and site visits. Collected information will be organized around themes identified as valuable to partnerships and that lend themselves to accelerating students' educational goals. Themes include, but are not limited to, assessment procedures, instructional methods, policies and support services.

As the Developmental Education Initiative study progresses over the next few months, watch for updates in the Centergram. More information may also be obtained by contacting Adrienne Glandon (glandon.8@osu.edu; 614-688-3720).

### Contents

- 2 CETE and the Automated Materials Joining Project
- 3 PACE: New Edition Available
- 4 News from Project KNOTtT
- 6 Events
- 6 CETE Contacts

## Worker Behaviors: Essential to Success

ROBERT E. NORTON

Behaviors that employees exhibit on the job can separate average employees from the top performers. Behaviors are so ingrained in us that it takes an increased awareness of them before we can truly develop and model those that employers value.

### Definition of worker behaviors

Simply stated, worker behaviors are the observable behaviors employees exhibit on the job. Positive worker behaviors are the traits and actions commonly and consistently displayed by successful employees. On the other hand, these behaviors are usually lacking, at least to some extent, in employees who are not promoted or are fired. Worker behaviors as defined here are those many attitudes and attributes that make up the affective domain of learning and human performance.

There is a difference between those behaviors that occur while on the job versus those that may be exhibited in the evenings or on the weekends. Those personal behaviors are of concern only if they involve illegal activity or are such that they carryover and negatively affect on-the-job performance. For example, if the worker drinks so heavily on Sunday that he or she is not sober and clear-headed on Monday, that's an undesirable personal behavior that will negatively affect job performance.

### Some related terms

Many related terms have been and are still being used to describe these behaviors. Perhaps the most common term used is employability skills. They are commonly defined as those "skills" that commonly cut across a variety of jobs. Other terms used include soft skills, workplace skills, essential skills, key competencies and transferable skills. The term "skills" is misleading, as the term *skills* is most commonly used to refer to the hands-on psychomotor skills needed to prepare, build or construct some product or to operate or repair some piece of equipment. The term *competency as used with "key competencies"* is also misleading as competencies is the term that is usually defined as learning and performances that include aspects of not one but all three learning domains: cognitive, psychomotor and affective. Some writers have defined employability skills as those "basic skills necessary for getting, keeping and doing well on a job." To be more specific, employability skills have been listed by some to include:

*continued as Behaviors on p. 4*

## CETE and the Automated Materials Joining Project

DAVID C. MULLINS

In 2010, Ohio joined 12 other states to take part in *Preparation for Tomorrow* — an initiative to develop rigorous career-technical programs that will prepare secondary students for high-demand careers and postsecondary success. The curriculum for these programs will integrate 21st century skills with rigorous academic standards that emphasize science, technology, engineering and mathematics (STEM). This 12-state consortium was organized by the Southern Regional Education Board (SREB), which is a nonprofit organization that works with states to improve public pre-K–12 and higher education.

Each participating state has been tasked with selecting a unique career pathway that reflects the needs of today's businesses and industry. Accordingly, each state is developing a series of project-based courses related to its career area that incorporate the new Common Core State Standards (CCSS). To this end, the Office of Career-Technical Education at the Ohio Department of Education (ODE) has partnered with the Center on Education and Training for Employment (CETE) at The Ohio State University to implement Ohio's chosen pathway focus: Automated Materials Joining Technologies (AMJT).

### What is Automated Materials Joining?

The process of *materials joining* encompasses welding, soldering, brazing, adhesives bonding and mechanical fastening. Additionally, there are over 100 process variations that involve lasers, electron beams, ultrasonic vibrations, frictional heating and electric arcs. Much of this is *automated* through robotics, incorporating the joining of both similar and dissimilar materials such as steel, rubber, plastic and more. *Automated materials joining* is integral to the production of automobiles, aircraft, bridges, pacemakers, artificial joints, farm tractors, appliances and many other devices and products.

Workers in this field need to have a high-level understanding of mathematics and science, as well as advanced technical skills. They also must be able to solve problems creatively and communicate solutions effectively in order to succeed. The goal of Ohio's AMJT project is to provide students with these knowledge and skill areas through hands-on, contextualized learning.

### Course Development

ODE and CETE have been actively working with an expert panel of secondary instructors, postsecondary faculty, and business and industry leaders to develop standards-based courses for the AMJT project. Much of this collaboration has been conducted through face-to-face meetings on the campus of The Ohio State University at CETE and the Edison Welding Institute (EWI). The primary goal of these meetings has been to create initial project drafts for the AMJT courses. Additionally, an online review process has been developed by CETE to facilitate refinement of the project drafts through Microsoft SharePoint.

Each of the four AMJT courses is comprised of a series of projects that are designed to give students an appreciation for the breadth of materials joining in manufacturing systems. Currently, the projects for the first two courses are at an advanced stage of development. Course 1 provides students with a foundational understanding of the essential principles of materials joining technology; Course 2 explores materials selection and properties.

Projects for the final two courses are still being developed at this time. The focus of Course 3 will be on robotics and joining applications. The focus of Course 4 will be on testing, evaluation and quality assurance.

### Next Steps

For 2012, the priorities of the AMJT project are to finalize the projects for Courses 1 and 2 and to continue refining the project drafts for Courses 3 and 4. Project pilots for the first two courses will be conducted in select career-technical schools at the beginning of the 2012-2013 school year. In preparation, a two-week training will be held in June for instructors who will be involved in the piloting. Details on the training and the piloting sites are currently being finalized and will be available soon.

For more information on CETE's involvement with this initiative, contact David Mullins (mullins.129@osu.edu; 614-292-5475).

## PACE: New Edition Available to Aid Small Business Entrepreneurs, Educators

To prepare individuals for success as entrepreneurs, CETE has released the fourth edition of the Program for Acquiring Competence in Entrepreneurship (PACE).

PACE targets the adult workforce and community college and technical school students as well as independent workers wanting to start their own business. Most business start-ups are in the trades, construction, basic services, basic manufacturing, food and transportation industries. PACE focuses on these types of small business ventures.

**Description:** The American economy needs both big business and small business to survive and prosper. Small businesses, as a whole, contribute greatly to the growth and renewal of regional and national economies. And, it is the entrepreneurs who bring that growth and prosperity through their ingenuity and creativity.

Many entrepreneurs have the basic knowledge, skills and ability in a specific trade to provide a service or produce a product. They may even have a product prototype or field-tested product. However, potential entrepreneurs lack the resources, basic business acumen or knowledge of where to turn for assistance to take their skill or product and develop a viable business enterprise. PACE provides entrepreneurs with the knowledge and resources to start and manage a business.

PACE continues to emphasize the importance of planning and managing of a small business. But it now includes a renewed

emphasis on meeting customer expectations. Any business cannot exist without a comprehensive understanding of who receives its products or services. In this sense, PACE introduces the topic of conducting e-commerce. Until recently, the entrepreneurial horizon may have been limited to serving local customers only. The advent of the Internet offers the promise of serving more customers, but not without the accompanying challenges.

A bonus to the fourth edition will include the resources available in each of the 50 states for entrepreneurs for technical assistance, regulation and licensing information. The resource information will list the Web sites and phone numbers of state and other agencies supporting the development of small businesses.

**Product Details:** All PACE materials are available in PDF format on a CD-ROM or in print. The 22 PACE modules are also available individually or grouped in three clusters.

Entrepreneurs can obtain information on specific topics and gain the desired knowledge they need; community colleges and technical schools can enhance and supplement their current entrepreneurship and small business management courses, create new courses and develop seminars and workshops.

For more information, please contact Kathy Summerfield (summerfield.1@osu.edu; 614-688-4000).

### PACE – Fourth Edition

A-1 Evaluating your Potential as an Entrepreneur	B-1 Developing Your Business plan	C-1 Managing Basic Business Functions
A-2 Understanding the Nature of Small Business	B-2 Finding Help for Your Small Business	C-2 Managing Your Human Resources
A-3 Making the Most of Marketplace Opportunity	B-3 Choosing the Right Type Of Ownership	C-3 Promoting Your Business
A-4 Investigating Global Markets	B-4 Developing A Marketing Strategy	C-4 Maximizing Sales
	B-5 Finding the Best Location	C-5 Maintaining Accurate Records
	B-6 Developing a Pricing Strategy	C-6 Managing Your Finances
	B-7 Financing Your Business	C-7 Extending Customer Credit
	B-8 Addressing Legal Issues	C-8 Minimizing Risk
		C-9 Maintaining Operations
		C-10 Conducting E-Commerce

## News from Project KNOTT

PAULA KURTH

### Project KNOTT Annual Project Personnel Administrative and Training

KNOTT (Kansas, Nevada, Ohio, and Texas Transition to Teaching) partners convened in Philadelphia, PA on August 5-7 for the project's yearly annual administrative and technology training sessions. Representing the KNOTT OSU personnel were **Belinda Gimbert**, Principal Investigator and Project Director; **Rebecca Parker**, Senior Project Manager; and Project staff **Bradley Henry**, **Greg Nagy**, **Jennifer Bale**, **Patricia Hanna**, **Sue Becker**, **David Fultz**, **Lori Owens** and **Lisa Riegel**. Representing national Project KNOTT partners were

**Judi Corcillo**, Executive Director, The National Association for Alternative Certification (NAAC) and **David Ritchey**, Executive Director, Association of Teacher Educators (ATE). State project partners included **Judie Hayes**, Kansas; **Martha Young**, Nevada; **Nell Ingram**, Dallas Independent School District; **Deborah Catri**, Ohio University; and **Michelle Reed**, Wright State University; and key project staff from each site. Also participating in the technology training and project planning sessions were teacher educators and mentors from ATE and Project KNOTT e-coaches from across the country. Evaluators from the Youth Policy Institute (YPI) attended to observe the training and interview participants.

*continued as KNOTT on p. 6*

### Behaviors from p. 1

- Decision-making and problem solving
- Use of technology
- Teamwork
- Communication skills
- Academic foundations
- Ethics
- Lifelong learning

It can be confusing when the broad terms of skills and competencies are used to describe worker behaviors or affective learning and performance when in fact those terms are usually used to refer to many other things as well. The use of those terms defined that way is like mixing apples, oranges and peaches together and calling them the same thing when you know they are not. The more precise and specific we can be about what really matters to employees and employers, the better job of training we can do. Of the above list, all the items listed are important, but only the teamwork and ethics items fit into what is being defined in this article as worker behaviors.

### The importance of worker behaviors

When talking with CEOs, human resources and other company managers, they have usually said they want employees with the occupational knowledge needed, the important psychomotor skills needed and the essential affective worker behaviors required. When questioned further, most employers have quickly added that having the **right worker behaviors is the most important** of the three areas of leaning and performance. Many employers say they can teach the knowledge and skills on the job, if necessary, but are unable to teach the proper worker behaviors in a short period of time and are likely to either not hire them or let them go instead. If an em-

ployee is not punctual, doesn't have a positive attitude, isn't willing to listen and follow directions, then he or she won't last long, if hired at all.

Recently, according to the Atlanta Journal-Constitution (9/6/2011), the Georgia State legislature passed a state law authorizing the governor's office to establish certification in what they are referring to as "soft skills." The news article reported that a statewide study will be conducted by holding 31 town hall meetings across the state to identify the soft skills. The Georgia Office of Workforce Development is charged with implementing the new law including mandatory testing by the fall of 2012. It remains to be seen as to how they will define soft skills.

### How to identify the worker behaviors

First, we must clearly define what we are looking for. Do we want to mix affective worker behaviors with foundational knowledge such as communication and mathematics, along with some psychomotor skills? Or, should we maintain the separation of each of these areas of affective learning and performance? Since worker behaviors are really different as are apples and oranges, it seems most appropriate to separate them. Given the importance most employers attach to worker behaviors, the rest of this article focuses on some ways to identify them, teach them and assess them.

Once we have a clear definition of what we are looking for, there are several ways to identify them, some of which are better than others. Reviewing the extensive literature or asking an advisory committee would be a couple of ways. Convening some type of focus group for that purpose alone would be another option.

In the DACUM job/occupational analysis process, we prefer to

simply ask the expert panel of usually five to 10 top performers what behaviors are expected of employees who want to be successful in their line of work. This is typically done on the second day of the DACUM workshop after all of the duties and tasks (psychomotor skills) have been precisely identified. This process helps the panel members to clearly separate the tasks (psychomotor domain) from the knowledge (cognitive domain) and worker behaviors (affective domain).

By this time, all of the panel members know each other and are able and willing to speak frankly about the kind of worker behaviors required for success in their line of work. If a group of top performers have been selected for the panel, they are basically describing each other's behaviors.

We have conducted over 1,000 DACUM job analysis workshops in the last 20 years on all kinds of jobs and occupations. We selected a random sample of 110 of the approximately 350 DACUM Research Charts (jobs) we have analyzed in the last eight years. The two lists in the box on the right reflect the results of our research (analyzing the charts) to see what behaviors were reported the most times and which ones were unique and reported only once.

## How to teach them

The next big question that needs to be addressed in our schools and colleges, admittedly only very briefly here, is how do we teach the appropriate worker behaviors. Several things come to mind. First, we must let our students/employees know how important these behaviors are. One good way would be to invite a company manager or human resources professional to speak about their importance and the effect they have on an employee's status. We also need to let the learner, student or new employee, know what behaviors pertain to that job or occupation. You can share the most common ones listed above, or you can be a little more explicit and precise by sharing with them the results of a local analysis of what expert employees in the local labor market area believe to be important. With a locally produced DACUM chart, you can show them the list of important behaviors as well as the names of the employees who identified them and the local companies they represented. It is suggested that you will need to remind the students and maybe even the new employees, probably several times, what the expected behaviors are.

One good way of doing this is to provide lists of the specific behaviors that are most important to certain tasks. These lists can appear in the training materials such as learning guides, modules, job aids, handouts, etc. Of course, they can also be addressed in question-and-answer sessions. Making them highly visible in the classroom, lab and employee work area should also help.

### The twelve most common behaviors

Flexible  
Team player  
Patient  
Professional  
Detail oriented  
Prompt/Punctual  
Creative  
Self-motivated  
Positive  
Honest  
Organized  
Sense of humor

### The twelve least common behaviors

Asks questions  
Change oriented  
Competitive  
Conservative  
Courageous  
Enforcer  
Extrovert  
Imaginative  
Outside-the-box thinker  
Playful  
Relentless  
Vigilant

Another key way to teach about positive behaviors is, of course, for the teacher or instructor to role model them. We cannot assume their parents are doing what we would hope for, as some will and some won't. Some youth simply do not have good role models at home. We need to help all of them become employable at something they are capable of doing.

Lastly, teachers or instructors need to monitor and provide constructive feedback to the learner whether he or she is in the classroom, lab or on the job. All of the worker behaviors can be observed, and that is a big part of the trainer's job. Chances are you will have multiple opportunities to observe and coach the learner. If the learner obtains only the knowledge and skills needed for the job, then we have failed in terms of their likely success on the job.

## How to assess behaviors

The last question to be addressed here, and again only briefly, is the question of how to evaluate, as objectively as possible, the student and worker's behaviors. Instructors and trainers usually have multiple opportunities to observe their students' or trainees' behavior. You cannot ask them how they will respond in a given situation and expect a valid answer. You can, however, develop checklists of worker behaviors themselves or even better, include worker behavior criteria as part of the task performance checklist for any task performance where behaviors will either be correctly or incorrectly observable. For example, in a restaurant setting, you could observe whether the waitperson greeted the customer promptly, kept the customer supplied with a beverage, asked if the food was okay, and thanked the customer at end of the meal. Similar items such as did the worker wear the correct personal protective equipment, promptly clean up spills, etc. can be written and objectively assessed. We owe it to our students or trainees and the employers to do an excellent job preparing them for successful employment, and that means far more than only teaching them the knowledge and skills needed.

## Events

### DACUM (Developing a Curriculum) Institute

February 6–10, 2012  
8am–5pm, hosted by CETE, Columbus, OH; \$1,495

### SCID (Systematic Curriculum and Instructional Development)

February 13–17, 2012  
8am–5pm, hosted by CETE, Columbus, OH; \$1,395

For information, contact Robert Norton, (norton.1@osu.edu); John Moser (moser.120@osu.edu); Debbie Weaver (weaver.22@osu.edu); [www.dacumohio.state.com](http://www.dacumohio.state.com).

### Test Development Workshop

March 12-14, 2012  
8:30am-4:30pm, hosted by CETE, Columbus, OH; \$1,100

Constructing valid, reliable assessments of job-specific knowledge and skills is critical to effective human resource practice. This workshop provides participants with practical knowledge and skills to understand the creation of valid, reliable, and legally defensible assessments. For information, contact Kathy Summerfield (summerfield.1@osu.edu; 614-688-4000) or Jim Austin (austin.38@osu.edu; 614-292-9897).

### *KNOTt* from page 3

Topics covered an overview of the project's learning management system, activities and processes for those new to the program; an update and discussion session on content creation, review and revision process, teacher hotline and ideas for content for the Classroom Support Series; best practices for e-coaches; and a demonstration of the new e-Spanish resources. Debriefing sessions were also held to discuss the previous year's successes and challenges, fiscal issues and the Annual Participant Survey.

The Project's first meeting in 2009 was attended by 30 site-based administrators and coordinators; our 2011 meeting drew 58 project personnel.

### Pay for Performance Policy Panel Discussion

A policy panel discussion on the issue of Pay for Performance was attended by **Belinda Gimbert, Rebecca Parker, Patricia Hanna** and **Michelle Reed** on September 12. The meeting was sponsored by the Fordham Foundation and held at Lorain Community College in Elyria, Ohio.

*Centergram* is published quarterly by the Center on Education and Training for Employment, College of Education and Human Ecology, The Ohio State University, 1900 Kenny Road, Columbus OH 43210-1016; 800-848-4815; fax: 614-292-1260; <http://www.cete.org>. Editing and Layout: Rene White (white.1054@osu.edu).

### Subscribe to the Electronic *Centergram*

To receive the *Centergram* via e-mail, go to <http://www.cete.org/publications/subscribe.aspx> or send a message to Dan Keck (keck.60@osu.edu).

### Share *Centergram* with a Friend

Know someone who might enjoy receiving our newsletters? Share your paper copy or send them this link and let them decide if they would like to subscribe: <http://www.cete.org/publications/centergram.aspx>.

### CETE Contacts

<b>Director</b>	Robert A. Mahlman	614-292-9072	mahlman.1@osu.edu
<b>Evaluation Services (Adult Basic &amp; Literacy Education)</b>	Traci Lepicki	614-292-7033	lepicki.1@osu.edu
<b>Assessment Services</b>	James T. Austin	614-292-9897	austin.38@osu.edu
<b>Curriculum Development</b>	Michael E. Wonacott	614-688-3356	wonacott.2@osu.edu
<b>DACUM/SCID/PBTT</b>	Robert E. Norton	614-292-8481	norton.1@osu.edu
<b>International Initiatives</b>	Wendi J. Howell	614-292-3641	howell.193@osu.edu
<b>KNOTt (Kansas, Nevada, Ohio, Texas Transition to Teaching)</b>	Belinda Gimbert	614-247-4599	gimbert.1@osu.edu