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ATEA

American Technical Education Association

Journal

2013 ATEA
50th National Technical
Education Conference

Setting the Gold Standard
in Technical Education

Chattanooga, Tennessee | March 20-22, 2013

Hosted by Tennessee Technology Centers



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COVER PHOTO

Chattanooga River, Chattanooga Tennessee, host city for the 50th National Conference "Setting the Gold Standard in Technical Education"

ATEA JOURNAL VOL. 40 NO. 1 LAYOUT

Shelly Fitterer, Dunwoody College of Technology, Minneapolis, Minn.

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The American Technical Education Association (ATEA) was founded in 1928 and incorporated as a non-profit professional education association in 1960. In 1973 the national headquarters was moved from Delmar, New York to Wahpeton, North Dakota. In 2012 ATEA located on the Dunwoody College of Technology, Minneapolis MN. ATEA is the only autonomous and non-affiliated international association devoted solely to the purposes of postsecondary technical education. ATEA is the leading association for the postsecondary technical educator with emphasis on professional development. Educators and individuals from business and industry come together at conferences to discuss the latest trends and developments in technology. The organization is dedicated to excellence in the quality of postsecondary technical education with emphasis on practical teaching ideas and best practices.



ateaonline.org

Fall 2012 | Vol. 40 No.1

From The Executive Director



The United States is moving into a "nation building" time and ATEA members are positioned and needed to provide the skilled and educated workforce to do it. Similarly, ATEA is positioned and needed to communicate the value of postsecondary education to the individual, the employer and the nation.

This new era for postsecondary education and ATEA's role was recognized at the two ATEA regional conferences. Assistant Secretary of Labor, Jane Oates, keynote speaker at the ATEA Region 6 Conference in Coeur d' Alene, Idaho, commended ATEA Board for "your focus on postsecondary technical education which is unique among associations." She encouraged ATEA, "to be a connection among your members and business and industry to share best practices across the nation."

Lake Area Technical President, Deb Shephard, commented at the ATEA Region 5 Conference that "Postsecondary technical education has been discovered. It is our golden moment and with that comes the responsibility to communicate what it takes to technically train the workforce."

In March the time and location is right for ATEA's 50th National Technical Education Conference, entitled "Setting the Gold Standard in Technical Education," to be held in Chattanooga, Tennessee, and hosted by the Tennessee Technology Centers.

The host, Tennessee Technology Centers (TTC), have received national attention for their focus and streamlined technical education programs that produce graduates and employees. James King, Vice Chancellor for the Tennessee Technology Centers, appreciates and welcomes the attention with "We have been here for 60 years." TTC's were covered in *Chronicle of Higher Education* July 30, 2012 article, "Less Choice, More Structure for Students: In a Tennessee System, It Works." A full reprint is included beginning on page 12. The national conference schedule, keynote speakers, trade show and conference sponsorship information is included in this issue.

In closing, the *ATEA Journal* is a refereed and reviewed journal. Thank you to Dr. Sandra Coyner for her professional leadership of the process. We thank Dr. Ed Mann, University of Southern Mississippi, Hattiesburg, for his service on the Editorial Committee. Dr. Mann has generously served and is retiring.

All the best and see you in Chattanooga!

Dr. Sandra Krebsbach



As I write this note, hurricane Isaac is playing havoc along the Louisiana coast. Through the miracle of modern technology, we can gauge its forward progress, its actual

wind-speeds, its potential rainfall, and the possible path of its movement. We owe a lot to the folks who invented and constructed this technology. We owe even more to the technicians who maintain and repair this equipment, the folks who keep it running.

In some respects they are the true heroes... the guys and gals who keep the storm-chaser aircraft running, the radar turning, the thousands of computers churning out information. And what of the folks who bring the computer models to the newsroom, the broadcast studios and the websites of our information age?

There are more heroes out there, like the folks who keep the emergency vehicles running, the paramedics ready to respond, the communications dispatchers, the folks

tasked with keeping roads and bridges functioning, or the teams of technicians clearing and repairing power lines and phone lines-the nerve centers of our society. What of the police, fire, and safety officers? What of the folks who repair the water lines, the gas lines, and clean the sewers?

So what part of the important role played by technically-skilled career persons does the average citizen or the career bureaucrat not understand? Why is it so difficult to give the technical careers their due...to give them the respect and consideration they deserve?

The average automobile of the last 15 years contains at least 40 on-board computers. Training to diagnosis and repair automotive problems requires a knowledge of math, computers and the ability to communicate clearly to the customer. No longer is an automotive technician a greasy-handed high school drop-out wielding a ball-peen hammer!

What of a welding technician? Virtual welders are saving tons of instructional time and money, but even more than that is the simple fact that welding is no longer the simple joining of two pieces of metal together and hoping it doesn't bubble. Contemporary welding requires the

knowledge of many different materials and a multitude of techniques, some of which are computer assisted. I am reminded of one of my dual-credit welding tech students, who, this past year, maintained a 4.0 G.P.A. in ALL his classes, including Calculus and was on the team winning the Arkansas State SKILLS Championship in Lay-out and Fabrication! The contemporary welding technician is a student of physical science, math (applied calculus) and the skills to communicate appropriately with the client.

We are involved in teaching, not "vocational" classes, not "trades", nor anything reflecting the cast-off, last resort kind of mentality of the previous two centuries. We teach high level skills to a variety of people who must become schooled in math, science, computers, and communication skills in order to fully understand the "why" of what they are doing and to be able to communicate with those who depend upon the technicians to do it right the first time, any time.

Isn't it time we introduced our government officials, our citizens and our academic educators to the appropriate vocabulary for our times? We are administrators and educators of technical-skilled people. We are not teaching discards from society. We are not teaching from desperation. We are teaching highly motivated students, often more highly motivated than their peers to pursue further education. We are teaching people in the fastest growing segment of the American economy. We prepare people for TECHNICAL careers. We are teachers of TECHNICAL education.

As long as the world can view the technical careers in a negative, derogatory manner it will dismiss the importance and significance of what we do, thereby, justifying again and again the meager funding for such programs, with the resulting disconnect between what industry needs and the ability to train for those needs. Isn't it time we helped others see the real value and return on investment from those who are technically educated? Isn't it time we generated a dialog that would move our vocabulary and our concepts into the Twenty-first century? What do you think?

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2013 ATEA 50th National Technical Education Conference

Setting the Gold Standard in Technical Education
March 20-22, 2013 | Chattanooga, TN Convention Center



Reasons why you should attend the 2013 ATEA National Technical Education Conference

EXPLORE the training centers of two of today's leading industries in automobile manufacturing and green technology

NETWORK with more than 700 peers, colleagues and leaders in technical education from across the nation

LEARN the latest techniques tools and strategies to foster learning in your classrooms and labs.

EXAMINE the latest products and services of companies who offer hardware, educational software and web activities that enhance technical education by attending the trade show with more than 40 vendors.

Hosted by:



hosts Hosts issue invitation to National Conference

Tennessee Board of Regents Vice Chancellor for Tennessee Technology Centers James King and Tennessee Technology Center at Nashville Director Mark Lenz invite you to join them at the American Technical Education Association 50th National Conference in Chattanooga, Tennessee in March 2013. They are pleased to host this special celebration of ATEA as they welcome you once again to the beautiful area of Chattanooga.

The local planning committee is working hard to make this commemorative conference one not soon forgotten by its participants. Informative sessions, outstanding presenters, and opportunities to network with fellow experts in technical education are just a



James King



Mark Lenz

few of the reasons everyone affiliated with ATEA should attend this conference.

The city of Chattanooga, with the Tennessee River flowing through it and the 29 mountain peaks and summits that surround it, promises to serve as a beautiful background for the conference. “We have a great conference planned! And because Chattanooga has so much to offer, even those who visited last time will find something new to discover!” said Mr. King.

Begin making your plans today to attend the 2013 50th National Conference on Technical Education in Chattanooga, Tennessee March 20-22, 2013!

Tennessee Technology Centers



The Tennessee Technology Centers (TTC's) are proud to host the American Technical Education Association's 50th National

Conference on Technical Education in Chattanooga, Tennessee, March 20-22, 2013. The 27 Tennessee Technology Centers, national models for technical education and workforce development, offer quality state-of-the-art technical training for today's workforce. Governed by the Tennessee Board of Regents, the nation's fifth largest system of higher education, the TTC's offer certificate and diploma programs in a variety of occupational fields as well as customized training for business and industry.

Established through companion legislation to the Vocational Education Act of 1963, State Area Vocational-Technical Schools were originally under the governance of the State Department of Education. In 1983, the General Assembly transferred governance to the Tennessee Board of Regents, and in 1994, legislation passed, changing their names to Tennessee Technology Centers.

Through their Workforce Development mission, the Tennessee Technology Centers help businesses and industries satisfy the need for a well-trained, skilled workforce. Their Need-Centered and Career-Centered Training models, which have produced among the highest completion and placement rates of post-secondary students in the country, have brought them the attention of several national higher-education advocates. “We offer a more focused mentality,” stated Vice Chancellor for Tennessee Technology Centers James King. “If you follow the model, you can graduate.”

Featured in the February 2012 edition of *Community College Week*, the Technology Centers “enroll [students] in a whole program that is fully defined in terms of content, objectives and structure.” Complete College America, the Bill and Melinda Gates Foundation-supported think tank, is among the most ardent supporters of the Technology Center system. Using the concepts of small classes, course hours, block scheduling and embedded remediation, the Tennessee Technology Centers provide technical skills training for their students and models of success for post-secondary institutions across the country.

tours 2013 50th National Conference Tours

Volkswagen — Volkswagen Group of America has invested \$1 billion in the local economy for its LEED®-aggressive assembly plant in Chattanooga, Tennessee. Having created more than 2,200 direct jobs in the region and over 9,000 indirect jobs, the plant builds the new Volkswagen Passat models designed just for the U.S. The Volkswagen Academy opened in June 2010 and serves as a training center for employees and is home to the Automotive Mechatronics Program (AMP), an innovative partnership program between Volkswagen and the Tennessee Technology Center at Chattanooga State Community College. The 163,000 square foot Academy features modern classroom facilities, as well as all the aspects of the manufacturing facility on a smaller scale to allow for hands-on training. Tours of both sites will be offered to conference participants both Wednesday and Thursday at different times during the day.

WACKER Institute — Wacker Polysilicon North America is building a \$1.8 billion plant near Chattanooga to manufacture nearly 40 million pounds per year of hyperpure Polysilicon serving the growing demand of the solar panel and photovoltaic industries. This new plant will be the first of its kind outside of Europe, and will create 650 new jobs. A partnership with Chattanooga State Community College resulted in the creation of the WACKER Institute, a 24,000 square foot training center with a state-of-the-art Pilot Plant and engineering labs. Graduates of the WACKER Institute at Chattanooga State receive an A.A.S. in Engineering Technology, with principle areas of emphasis in Chemical Engineering Technology and Industrial Systems Engineering Technology.

Civil War Tour— This tour begins with a ride to the top of Lookout Mountain on the Incline Railway, the steepest passenger railway in the world. There one can visit The Battles for Chattanooga Electric Map and Museum, which houses a 3-dimensional exhibit of Chattanooga's Civil War history, and then walk over to Point Park, the site of the famous Battle Above the Clouds. Learn about Sherman's assault on Missionary Ridge before his historic March to the Sea.



Bluff View Art District— Sitting atop cliffs overlooking the Tennessee River, this district resembles a small European village. Visit the Hunter Museum of American Art, then enjoy a self-guided tour, visiting shops and choice eateries in the area. Be sure to stop at Rembrandts, where they make their own pastries, chocolates, etc.

A Golden Opportunity for Conference Attendees— On Thursday evening, March 21, conference attendees will be treated to an hors d'oeuvre reception to set the evening off right. Afterwards, attendees will have time to explore the gold mine of foods, activities and shopping that Chattanooga has to offer. Information will be available during the conference and at the reception on places to go and sights to see.



Chelle Travis, Assistant Vice Chancellor of Student Services at Tennessee Technology Centers and ATEA Board of Trustee
Serving as Coordinating Chair for the National Conference.

schedule

2013 ATEA National Conference Schedule At-A-Glance

March 20-22, 2013 | Chattanooga, TN |
 “Setting the Gold Standard in Technical Education”

Tuesday, March 19

9:00 am – 6:00 pm TTC Outstanding Student of the Year Interviews (closed)
 9:00 am – 4:00 pm SkillsUSA TN Officer/Advisor Training
 4:30 – 7:30 pm Registration
 6:30 – 8:30 pm ATEA Conference Planning Committee

Wednesday, March 20

8:00 am – 4:30 pm Registration
 8:00 – 9 am ATEA Committee Meetings
 8:00 am – 4:00 pm TTC In-service and ATEA Sessions
 8:15 am – 11:45 am Volkswagen Tour
 9:00 am – noon ATEA Board of Trustees Meeting
 10:45 am – 2:15 pm Volkswagen Tour
 11:00 am – 1:00 pm Lunch for TTC In-service and ATEA Sessions
 noon – 6:00 pm Exhibit Area open
 12:45 pm – 4:15 pm Volkswagen Tour (box lunch included)
 1:00 – 4:00 pm Business and Industry Tours
 4:30 – 6:00 pm Get Acquainted Reception with Exhibitors
 6:00 – 8:30 pm ATEA Opening Session and Dinner Welcome
 Keynote Speaker: TBC Assistant Secretary of Labor, Jane Oates
 TTC Awards
 8:30 – 11:00 pm Entertainment featuring “The Beaters”

Thursday, March 21

7:30 am – noon Registration
 7:30 am – noon Exhibit Area Open
 7:30 – 8:15 am Continental Breakfast with Exhibitors
 8:15 am – 11:45 am Volkswagen Tour
 8:30 – 9:15 am ATEA Welcoming Session
 9:30 – 10:15 am Concurrent Sessions A1-12
 10:30 – 11:15 am Concurrent Sessions B1-12
 10:45 am – 2:15 pm Volkswagen Tour
 11:15 – 11:30 am Break with Exhibitors
 11:30 am – 12:15 pm Concurrent Sessions C1-12
 12:30 – 2:00 pm ATEA Awards Luncheon
 Keynote Speaker: Timothy W. Lawrence
 ATEA National Awards
 Volkswagen Tour (box lunch included)
 Concurrent Sessions D1-12
 Break
 Concurrent Sessions E1-12
 Reception
 A Golden Opportunity to Explore Chattanooga

Friday, March 22

8:00 – 8:45 am Concurrent Sessions F1-12
 9:00 – 9:45 am Concurrent Sessions G1-12
 10:00 – 10:30 am Regional Meetings
 10:45 am – noon Closing Session and Brunch
 Invitation to 2014 National Conference
 ATEA Business Meeting
 Keynote Speaker: Dr. Robbie K. Melton

Registration and Hotel Information

Registration Fee:
 Prior to January 15, 2012 \$395
 January 16 to conference \$495
 Registration includes several meals, sessions, keynote speakers, trade show and social event. Registration also includes a one-year complimentary membership to ATEA!
 Registration will be available from the ATEA website beginning November 1, 2012. Visit www.ateaonline.org for details.

Hotel Information:

Chattanooga Marriott at the Convention Center
 2 Carter Plaza
 Chattanooga, TN 37402
Conference Rate:
 Single \$94 + Tax
 Double \$104 + Tax
 For reservations call: 1-800-841-1674
 Registration Code: ATEA
 Or online at: www.ateaonline.org for links to available hotels
 Reservations must be made by **February 15, 2013** to receive conference rate. Graduate/Undergraduate Credit Offered

keynote speakers

Timothy W. Lawrence



Having been involved with education and the SkillsUSA organization for most of his life, Mr. Tim Lawrence firmly believes that getting involved in technical education over 30 years ago set his course for a successful future.

Mr. Lawrence began his experience with SkillsUSA as a welding student and VICA member in high school, competing in the West Virginia State Skill Olympics in 1969. He worked in both labor (UMWA) and management positions in the manufacturing industry for nine years while continuing his education, and received his teaching credentials from Virginia Tech and his degree in Administration and Training from James Madison University. He fulfilled one of his life dreams when he became a teacher and successful SkillsUSA advisor in Tazewell County, Virginia in 1978, a position he enjoyed for nearly ten years. In 1983, Mr. Lawrence achieved another life goal when he was named the National Trade and Industrial Education Teacher of the Year by the American Vocational Association (now ACTE).

In 1987, he joined the Virginia Department of Education as a vocational student specialist and chief executive officer of the Virginia Association of SkillsUSA. During his nine years as Virginia’s director, Mr. Lawrence expanded the SkillsUSA program and added several unique state activities,

Dr. Robbie K. Melton

“Education On Demand and In Your Hands”



Mobilization (the use of smart phones, tablets and mobile apps) has impacted every facet of education from PreK-Ph.D. and the workplace across the globe. Strategically, the Tennessee Board of Regents established a System Wide Office of Mobilization to

making it one of the most active state associations in America and the fourth largest in membership nationally. He also served students, teachers and administrators in other youth initiatives with the National Safety Council’s Youth Division, Students Against Driving Drunk and numerous community service organizations. Mr. Lawrence also served SkillsUSA nationally as a team leader and director of the Washington Leadership Training Institute and held every leadership position with the State Association Directors Association. As chairman of this association, he served as a member of the national SkillsUSA Board of Directors. He also served on the task forces that developed the SkillsUSA Professional Development Program and Total Quality Curriculum.

In 1996, Mr. Lawrence accepted the position of Director of Business and Industry Partnerships at the SkillsUSA National Leadership Center in Leesburg, Virginia. In this position, he oversaw all partnership activities, including SkillsUSA’s Youth Development Foundation, the SkillsUSA Championships, the World Skills Competition, and National SkillsUSA Alumni. He serves as a board of director’s member for several national organizations and was also involved as a member of the Manufacturing Skill Standards Council. In January, 2001, Mr. Lawrence became the Chief Executive Officer of SkillsUSA, one of our nation’s largest individual membership organizations. In this position, Mr. Lawrence feels he works for the students and teachers of America’s technical education system.

Timothy W. Lawrence

Executive Director, SkillsUSA
 14001 SkillsUSA Way
 Leesburg, Virginia 20176
 (703) 737-0601

provide support to the campuses and to assist faculty and students in utilizing mobilization as teaching, learning, training, and workforce tools, as well as for increasing student engagement and retention.

Dr. Melton serves as the chief system level administrator to oversee the system’s mission and initiatives for the Strategic Mobilization Planning and Business Models, Mobilization Quality Assurances, Faculty and Student

Use of Mobile Devices related to teaching, learning, training, and workforce development, and the coordination of research, product testing, pilots and security safety networks. She has published and presented around the nation the impact and value of mobilization for education and the workforce and has acquired a new distinction as an "Appologist", due to her study of the pedagogy and best teaching practices with mobilization, quality standards for the utilization of mobile apps, and for her creation of the Mobile App Education and Workforce Resource Center (50,000+ Apps that have been aligned with over ninety-five subject areas from PreK to Ph.D., including workforce careers, professional development and life-long-learning; according to one's mobile device of choice).

Dr. Melton formally served for ten years as the chief administrator responsible for the strategic planning and implementation of Tennessee Board of Regents System Wide Regents Online Campus Collaborative: Regents Online Degree Programs and Regents Online Continuing Education.

Throughout her forty years in the field of education, Dr. Melton has received numerous teaching and technology awards and acclaims with the most recent award of the 2012 WCET WOW Education Technology, Tennessee Board of Regents 2011 Catalyst Leadership Award, 2010 IMS Global Learning Leadership, 2010 MERLOT Educational Leadership Higher Education System Level, 1998 Outstanding Teaching and Advisor, The University of Tennessee 1996 Outstanding Teaching Alumni Award, 1994 Tennessee Professor of the Year presented by the Carnegie Foundation of Teaching and Council for Advancement and Support of Education, 1990 Outstanding Professor and University Services at Winthrop College, the Zenith Master of Innovations Award, and the South Central Bell Award for Outstanding Teaching Using Emerging Technologies.

Dr. Robbie K. Melton

Robbie.Melton@tbr.edu is the Associate Vice Chancellor of eLearning and Emerging Mobilization Technology

www.tbrelarning.org

Bennie VanCourt Professional Development Scholarship for ATEA National Conference Registration

Each year the VanCourt family makes an annual contribution in memory of the late Bennie VanCourt Mississippi Gulf Coast Community College faculty. The application is on the ATEA National Conference webpage or contact the ATEA national office at 612-381-3315 or email info@ateaonline.org for a copy of the application. The applications are due December 21, 2013 and the selection committee will contact the recipient by January 11.

ATEA Board of Trustees thanks the VanCourt family.

IT'S TIME TO SHOW THE TECHNICAL EDUCATORS ACROSS THE NATION THE BEST OF WHAT'S NEW.

EXHIBIT

at the
ATEA NATIONAL TECHNICAL EDUCATION CONFERENCE
MARCH 20-21, 2013
CHATTANOOGA CONVENTION CENTER

Reach the product and service decision makers from the postsecondary technical centers, institutes and colleges from the across the nation at the 2013 ATEA 50th National Technical Education Conference, host the Tennessee Technology Centers. The Chattanooga site attracts 900 attendees, 700 from the 27 Tennessee Technology Centers and 200-300 ATEA members.

The ATEA National Technical Education Conference offers exceptional programs and opportunities to network with cutting-edge exhibiting companies. visit us online to register www.ateaonline.org

RATES: \$700 standard size booth with signage, draping and chairs (member discount \$500)

For questions about booth space reservations contact the nation ATEA office at 612-381-3315 or info@atea.org



Reprinted with permission from the Chronicle of Higher Education
July 30, 2012

Less Choice, More Structure for Students: In a Tennessee System, It Works

By Jennifer Gonzales

Nashville

Motivational framed posters line the hallways here at the Tennessee Technology Center. “The world needs dreamers and the world needs doers,” one reads. “But above all, the world needs dreamers who do.” In classrooms hang inspirational poems with titles like “Success” and “Don’t Quit.”

The hopefulness permeates the center, from its staff to its roughly 900 students, with measureable results.

The Nashville campus is part of the Tennessee Technology Center system, which has become something of a darling among college-completion advocates. Comprising 27 locations across the state, the system boasts graduation and job-placement rates that many colleges only dream of: 75 percent and 83 percent, respectively. Such achievements are even more noteworthy given the population the system serves; racially and ethnically diverse, low-income adults—students who tend to struggle in college.

The system has caught the attention of two-year colleges, a sector in which less than a third of students earn degrees in four years, although about a fifth of them transfer to four year-colleges during that time. Administrators from community colleges around the country—the City Colleges of Chicago, the Ivy Tech Community College System, in Indiana; and Texas State Technical College system, for example—are trekking to Tennessee to observe the

center’s rigid academic structure.

Nobody thinks community colleges should turn into technical colleges. They have a broader mission, which includes preparing students for transfer and providing enrichment classes to the community. Still, the Tennessee system’s model seems to help meet two pressing needs: to increase graduation rates, in accordance with national goals, and to better prepare students for the work force, as jobs demand more education than ever before.

The system’s highly structured academic environment, not unlike that of a high school, is key to its success, senior administrators say. Rather than choose individual courses, students enroll—the majority full time—in programs with predetermined schedules. Classes meet every day for six hours and last from several weeks to more than a year, depending on the program. Attendance is taken. Remediation is embedded in coursework. Though grouped together students move through programs at their own pace.

The structure is foreign to most traditional colleges, where students design their own schedules.

We take away a lot of the choices from students,” says James King, the system’s vice chancellor. “This is not Burger King. There is no ‘Have it your way’ here.”

Mr. King welcomes all the interest in his system, but he finds its sudden

novelty amusing. “We have been around for 60 years,” he says. “We are smiling a lot these days and taking the compliments as they come.”

Over time, despite administrative changes, the technology centers’ instructional model has remained essentially the same. The system was once run by the state’s Department of Education, but as the centers evolved into predominately adult-serving institutions, the Board of Regents took over.

Law makers in the state are paying attention. In 2010 the Tennessee legislature passed a law intended to improve completion rates at public higher-education institutions. It requires community colleges to adopt many of the same strategies of the technology centers already employ, such as block scheduling—in which students are assigned to multiple classes together—and grouping students in cohorts.

National higher-education advocates, too, are looking on with interest. Stan Jones, president of the nonprofit group Complete College American, is an enthusiastic supporter of the technology-center system. In fact, the group released a report in 2010 to promote the system’s work. “The model illustrates that institutions can graduate more students.” He says.

While an increasing number of community colleges have taken notice of the technology-center system, some are incorporating only “bits

and pieces” of the model, says Mr. Jones. Some limitations are clear. For example, much community—college students attend part-time.

But a piecemeal approach to adapting the technical-system model is problematic. Mr. Jones says, because the synergy of several strategies is what makes it work. “Without that,” he says, “institutions are not going to get the results they are looking for.”

Learning the ropes

Anybody with a high-school diploma or GED can train at a Tennessee Technology Center, in programs as varied as collision repair and practical nursing. The centers, with open enrollment and rolling admissions, serve about 30,000 students. The prevailing philosophy is that they learn by doing, at their own pace, with lectures kept to a minimum.

Graduation is practically inevitable, says Mark Lenz, director of the Nashville center: “We put them on that path from the beginning.” From the start, he says, they know how long their program will last, what classes to take, and how they’ll find work. Costs range from \$1,638 to earn a phlebotomy certificate to \$7,711 for a machine-tool-technology diploma.

A hallmark of the centers is a competency-based curriculum, in which a student must demonstrate their mastery of certain skills. Business-systems technology students, for instance, take quizzes and tests, while welding students perform techniques as instructors evaluate them. The programs are not based on earning credits but on fulfilling a required number of course hours.

All instructors come from their respective industries and work closely with an advisory board, primarily

of business leaders, to ensure that the students’ training matches local needs. Relationships on boards often lead to job offers for students.

The center goes to great lengths to mimic the workplace setting. Barbering students, for example, work in a large classroom that resembles a barbershop, down to the striped pole outside the door. In the mornings, they gather in an adjacent room for “theory class,” where Jeffery Moore, an instructor, lectures for an hour on a range of topics, such as hair tinting and identifying skin disorders.

The rest of the day is spent on the “floor” as it’s called, where students like Kelnitra Robinson apply what they’re learning on paying customers. As Ms Robinson, wearing black scrubs, dips her clippers into a large blue disinfectant, she talks about the need for proper sanitation in a barbershop—a lesson undoubtedly repeated over the course of the program.

Ms. Robinson, 25, decided to become a barber to improve her earning potential after being stuck in what she describes as a string of dead-end jobs, like scooping ice cream at Dairy Queen. This is her second attempt at higher education. In 2005, at her mother’s insistence, she enrolled at Volunteer State Community College, to study physical therapy. But feeling detached from the courses and the college experience, she dropped out after a year and a half. This time around, she says, she feels connected to the material, supported by instructors and staff, and eager to attend classes.

“What I’ve found out is that I learn best by doing, by working with my hands,” Ms. Robinson says. “I have big dreams now. I plan to open my own upscale salon, or even a barbershop.

Although students progress through coursework mainly on their own, instructors are always nearby. In the business-systems-technology program, where the classroom features a receptionist’s desk, cubicles, and a coffee stand, students at computers work on basic accounting and customer-relations management.

There are no lectures, but Deanna Wallace, an instructor, roams around checking on students’ work and helping with concepts they don’t understand. She will be their instructor for the duration of the program.

Her role is a challenging one, with students continually arriving and graduating. And the program offers not only certificates and diplomas, which vary in training length, but also several tracks for different specialties. So Ms. Wallace must follow students’ progress individually rather than moving them through coursework as a group.

Standing behind the faux receptionist’s desk, she laughs. “You have to be real organized to do this job,” she says. “The key is making sure everything is laid out for them from Day 1 until they graduate.”

Embedded Remediation

Remedial work at the technology centers is integrated into academic programs, going by the less stigmatizing name “technology foundations.”

(Continued on page 22)

Formula to Build Sustainable Online Course Curriculum

by Qetler TJ Jensrud, Ph.D and Susan J Olson, Ph.D

Abstract

The delivery of online courses is increasing exponentially in higher education. Because the online format is being used more and more throughout higher education, it is essential that curriculum developers utilize a process that is sound and takes into consideration the stakeholders associated with implementing online courses, programs, and degrees. This article advocates employing a formula to ensure a smooth process in transforming face to face courses into an online format. The initial consideration of all stakeholders will assist in the sustainability of constructed curriculum.

Keywords: online learning, curriculum development, online stakeholders, online course development

Formula to Build Sustainable Online Course Curriculum

The phenomenon of online learning at all levels of education is increasing each year (Allen & Seaman, 2010). This expansion is not predicted to decrease, but in fact is anticipated to increase exponentially (Kamenetz, 2010). With the growth in online delivery arrives new challenges for curriculum developers to generate rigorous yet motivating online learning experiences in a timely manner that are sustained over time (Lowes, 2008).

The decision to put a course online, or an entire degree, takes a great deal of planning and foresight on the part of many different stakeholder groups to create a process that is systematic and sustainable (Rovai, Ponton & Baker, 2008). One way to go about this process is to follow a

formula that takes into account the various stakeholders associated with curriculum development in this new online format. In the past, curriculum development was left to faculty only.

Because of the nature of employing technology in a course, it is suggested that other entities must be addressed and collaborated with to generate learning experiences that are successful, while maintaining academic freedom. The generation of online curriculum utilizing the most up-to-date technologies can take more time to create than developing a face-to-face session. The creation of an online session, course, or degree should include planning and collaborating with essential organizational stakeholders, while maintaining a commitment to the prime stakeholder, the audience.

To maintain a systematic and sustainable model of online curriculum development, a formula can be used associating the different stakeholders as the factors with the results being a sustainable model. The formula proposed for a sustainable model of online curriculum development is:

$$\text{Administration} \times \text{Faculty} \times \text{IT Support} \times \text{Technology} \times \text{Audience} = \text{Sustainable Model}$$

Each component is necessary to achieve success in developing online learning and maintaining a process over time. The components are depicted as multiplicative factors because without any one of the elements the results would be a “0” score. There are essential Knowledge, Skills, and Attitudes (KSA’s) that each stakeholder brings to the table,

must be considered, and also must be recognized and appreciated by the other stakeholders (see Table 1).

Administration

For the process of developing online curriculum, it is essential that there is buy-in from the top of the organization. Administrators must be aware of the time and effort it takes to put learning experiences online (Instructional Technology Council, 2010). It is recommended that faculty have an increased load allocation for online course development (Cho & Berge, 2002) and teaching efforts because of the additional time required to create and maintain an online course. Financial commitment is also important to provide staff and instructional support personnel to assist the instructor and maintain the pace of the course for the audience (Levin & Arefeh, 2002).

In most cases, policies and procedures need to be revised and supported. An online paperwork system needs to be developed and supported (e.g., dropping classes via online procedure). Administrators should be aware of available technologies and appreciate the challenges that might be faced by both the faculty and audience (e.g., the system might go down, the Beta-Testing of a new product recently purchased might need to be abandoned because it did not result in the anticipated outcome, etc.) when deploying new technologies.

Faculty

Faculty bring the content expertise and proficiency associated with sound curriculum development. Developing

Stakeholder	KSA's Necessary
Administration	Obtain buy-in from the top Employ “fair-effort” considerations (1.5 credits for online) Purchase of needed technologies Provide instructional support (e.g., staff, TA’s) Revise policies (e.g., drop/add forms, online submission of docs) Appreciate technology benefits & drawbacks
Faculty	Impart content KSA’s Follow “best practices” curriculum development guidelines Ensure community Test new technologies (i.e., initiative to find and Beta-Test) Employ creative curriculum initiatives with technology Exhibit risk-taking behaviors while maintaining even disposition
IT Support*	Recall new technologies (make faculty aware) Teach new technologies to faculty Appreciate “good practices” curriculum development guidelines Support implemented technologies
Technology (Providers)	Make contact with organizations/institutions Demonstrate new technologies Support IT efforts Revise programs/software when necessary
Audience	Appreciate online learning role Realize needed computer skills and equipment Obtain necessary KSA’s for self-directed online learning Maintain even disposition with technology benefits & drawbacks

Table 1 | Stakeholder Groups
*Instructional Technology Support

rigorous and motivating curriculum takes the discipline to employ established curriculum models and guidelines (e.g., ADDIE, TPACK, etc.) (Bates, 2011; Dick & Carey, 1996; Mishra & Koehler, 2006). These best practice guidelines and models need to not only be followed in face-to-face courses, but also in the online format. Since students will be separated geographically, technology can be used to build a sense of community through chat rooms, discussion boards, emails or simply by having a face-to-face meeting as the first session of the course. Also, synchronous video conferencing such as Elluminate can be used to foster community while still being geographically divided to ensure students feel they are part of the learning environment.

Faculty need to have the motivation and creativity to search out and try out new technologies. This takes a bit of risk-taking on the instructor’s part,

as some technologies do not fit the anticipated need. If failure occurs, the instructor needs to maintain an even disposition; communicate with ITS (instructional technology support); relay the results to the audience; and mend, patch, or abandon certain procedures. New initiatives such as Quality Matters (QM) certification can be engaged to assist instructors in developing rigorous online courses (MarylandOnline, 2012) or faculty could use their colleagues as mentors.

In terms of curriculum development, a consistent format for online courses should be maintained. Faculty should agree upon a format prior to the development of online courses. Learning management systems (LMS) can be employed to deliver courses (e.g., Blackboard, D2L, etc.). These electronic LMS tools can assist instructors in the delivery of online courses and organize the learning experience. Each institution

must choose a LMS weighing the advantages and disadvantages of the software and support available. Within a chosen LSM, a protocol should be selected and adhered to throughout the program/degree so students have consistency as they are engaging in learning experiences across courses. For example, each module within a course could contain six pages (mini-modules): Overview, Competencies, Terms, Content Outline, Activities, and Assessments. Although each course might have a different number of modules, each module would contain the six areas so students feel comfortable where to find items. Using a consistent format helps students to navigate through the course knowing where to expect information and the type of activity associated with the page reference.

Although the format for courses is consistent, this does not mean that the instructor teaching the course does not have academic freedom. Different instructors who teach the same online course can fine-tune, add unique components, and personalize their course using various components of the LMS software.

Instructional Technology Support

It is essential to have IT support from the organization (Bates, 2011; Cho & Berge, 2002; Zirkle, Brenning, & Marr, 2006). Faculty and administration cannot be expected to have all the expertise that technicians can bring to the learning environment. IT personnel can search out new technologies and teach new skills to faculty as they have special KSA’s associated with technology and the motivation to implement new technological advances. Faculty have the expertise in content and curriculum

development, therefore, for these two stakeholders to mesh technology with content, it is necessary that IT individuals appreciate curriculum development guidelines/models.

Once a technology is implemented, technical support is vital to maintaining harmony during delivery. Faculty need easy access to support through helpdesks or contacting staff in a timely manner. Frustrations can run high for faculty and students when a technology is down. Swift support can temper this explosive state of affairs.

Technology (Providers)

Software and hardware providers (authors and vendors) should make connections with organizations to transmit advancements in products and services. Demonstrating these new technologies to faculty and IT support assists decision-makers in assessing and choosing appropriate applications (Muller et al., 2008). Once an application (or equipment) is employed, support by the vendor is a necessity if the IT support cannot answer pertinent questions. In addition, if an application has a “bug” that needs to be addressed, vendors need to have the professional motivation to patch the application in a timely manner.

One significant aspect for stakeholders to be conscious of is that technology does not always keep up with the ideas and creativity of curriculum developers. Not all content delivery ideas have an appropriate technology to support the dissemination of unique activities. If the technology cannot support the goal of the activity, the instructor needs to augment the activity in other ways or abandon its use and wait for technology advancements to occur and catch up.

Audience (Learners)

Many students come to the online learning environment because there is 24/7 access and they believe online courses take less effort than face-to-face courses (Burns, 2011); when, in fact, online courses demand as much effort and students need to be as diligent and committed to learning. If curriculum is created using best practices, a face-to-face course can be translated into an online format resulting in equal rigor (Peters, 2007). The audience needs to be aware of the role of an online learner (e.g., daily computer access) and the necessary computer equipment needed. Instructors can provide initial activities/assessments that assist students in becoming more self-directed (Chaney, 2009) by using the NEWS in the LMS, providing an initial face-to-face meeting with expectations, or offering an orientation course highlighting online learning skills.

The audience/students should be made aware that technology does fail and be given information on what to do when this happens. Having a plan alleviates some frustration. Also, faculty have to foster an environment that promotes respect and requests patience in the virtual realm. Setting up expectations initially, supplying “netiquette” rules, and offering community communication routes (e.g., chat rooms, email address lists, discussion boards, etc.) assists students in maintaining an even disposition as they feel there is some support and are not left without a course of action (Chaney et al., 2009). Students have an equal responsibility in maintaining an even disposition when it comes to online learning.

Another important perspective that the student stakeholder group can provide

relates to course evaluation. Although, these evaluations are always important in every course, a special effort should be made during initial implementation to solicit student perceptions of new endeavors (i.e., formative evaluation).

Planning with the Formula

All of the stakeholders should be taken into consideration during the entire planning process (Rovai et al., 2008). Many initial meetings flushing out the roles of administration, faculty, and IT support are needed. During these discussions, available budget and technology should be discussed and agreed upon.

The type of IT support available needs to be determined as well as expectations on turn-around time. Faculty need to inventory their KSA's and needs that they anticipate. An open discussion on the process and timeline should be determined and followed. IT and faculty will have to work together to interlock sound content with the appropriate technology. The technology does not determine the content information; conversely the content and goals drive the process to determine the selection of the appropriate technology. It might happen that a new technology is discovered, faculty and IT Beta-Test it, and they try to figure out how it could be used; but in the end, technology is not employed because of its entertainment quality alone.

As this planning process is taking place before the information is put into a format, it is critical to keep in mind the audience. Knowing who the audience is, what skills they currently have, and what is needed to deploy learning sessions to attain the necessary KSA's at the conclusion of the course is of the utmost importance so conversations

can take place and decisions made on the choice of technology and timeline needed for success.

Summary

Online course delivery is increasing, thus sound practices for online curriculum development is a necessity. Although current best practice guidelines should be followed in both online and face-to-face course construction, creating online courses poses a few more challenges. This paper advocates using a formula for online course development that is depicted as follows:

Administration x Faculty x IT Support x Technology x Audience = Sustainable Model

The factors in this model are multiplicative items where if one element is missing the end result will be a “0” score. All factors are needed to have a successful curriculum development process. Each of the stakeholder factors is needed to sustain the model over time.

Building online learning is a challenging process for curriculum developers as it is intertwined with the limitations and advancements in technology. Choosing, supporting, and maintaining online courses takes the KSA's of all the stakeholders involved.

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Collaborating To Transition Students Into The Workplace

by Crystal Neumann, D.B.A and Imani Akin, Ed.D

Abstract

This article discusses the findings of a phenomenological study regarding methods of successful transition of students from the classroom to the workplace. Results of interviews with working managers include information on what specific skills are required, what learning environments are appropriate, and the cognitive skills that result in creative and innovative thinking. Seeking opportunities to transfer the learning that occurs in schools into companies require teachers and managers collaborate to create a bridge for postsecondary students.

Introduction

Some students today excel at writing papers and taking tests. The world is changing, and writing and test taking skills are being replaced by imagination and innovative thinking. Educators should embrace the call for action to prepare students to be successful after graduation. It is time to prepare students to transition into a workforce of the future. Businesses want employees who are prepared to enter the workplace and with current skills (Abbott & Lear, 2010). Collaboration between schools and businesses is essential for transitioning students into the workplace.

Montanta and Petit (2008) stated that in a 2003 poll from Chief Information Officers, students coming out of college and entering the workforce lack certain key skills. In 2008, the Association of American Colleges and Universities reported that 57% of business leaders felt that less than half of college graduates have the ability

and knowledge, beyond basic skills, to advance in the workforce (Montanta & Petit, 2008). In this research, many of the employers interviewed also believe that students lack key skills. Educators can align the teaching and learning experience in the classroom with the skills needed in the workplace.

The purpose of this study was to identify a set of skills that meets employer expectations prior to entering the workplace. This research contributes to the literature by also identifying how educators and businesses can collaborate to foster employable skill sets. Merging managers' ideas into the curriculum blends theory and practice. The researchers also explored appropriate learning environments that generate postsecondary students into successful workers.

Entry level workers are defined as new to the industry or field without prior experience. Managers viewed entry level workers as having certification, diploma, or a two year degree. Some of the entry level positions include: (a) administrative, (b) customer service, (c) data processing/entry, (d) help desk and technical support, (e) pharmacy technician, (f) medical or nursing assistant, and (g) line cook.

LITERATURE REVIEW

Problem solving learning environment

Ediger (2009) states that technical students need to learn how to solve problems and troubleshoot. When students collaborate to solve problems, they move beyond memorization and

analyze each decision. Brainstorming in groups will also help students develop communication skills used in problem solving. Creating situations in which students practice different types of thinking can bridge instructors and students allowing them to have a more engaged teaching and learning relationship. Learners will develop a connection between challenges and opportunities that result in students' deliberation rather than a factual response (Ediger, 2009).

Experiential learning environment

Experiential learning is a process in which students gain knowledge directly from practice (Marlow & McLain, 2011). Internships improve the learning outcomes in live-case projects in comparison to students who did not have prior experience (Green & Farazmand, 2012). The experiential learning environment supports reflection and critical analysis.

Teachers may encourage students to create documentaries, conduct interviews and perform observations. Experiential learning develops decision making and responsibility. Through experience and reflection, students can discover and develop higher and deeper levels of understanding (Healy, Taran, & Betts, 2011).

Constructivist learning environment

Teachers will not reach every student during the same lesson because all students do not learn the same (Yuen & Hau, 2006). Students may find interest in one topic area and get lost in other presentations. Teachers must have students construct their own understanding of the material

rather than constructing it for them.

Creative learning environment

Learning environments that encourage individuality will increase personal responsibility and decrease conforming that may lead to mediocrity and underperformance (Maslow, Stephens & Heil, 1999). Opportunities for improvisation and flexibility foster a creative environment that develops creative thinkers. The skills of adaptability and creativity empower students to become workers, bosses, managers, and entrepreneurs.

METHODOLOGY

The purpose of this qualitative phenomenological study was to explore the perspectives and experiences of managers who deal directly with entry level graduates transitioning into the workplace. A phenomenological design was used to gain better comprehension of the phenomenon being studied (Moustakas, 1994). The central research question was "How can two year college technical faculty help entry level graduates transition into the technical workforce?"

The research methodology included one-on-one telephone interviews with 16 managers. The qualitative method encouraged the respondent to answer the open ended questions of how, why, or what is causing an issue (Yin, 1993). The transcripts were coded to determine the themes and significant statements until no new themes were introduced and sample saturation was achieved. In qualitative research methods, one must investigate a limited number of people in order to enhance the comprehension of a subject matter (Creswell, 2004). Themes emerged in the order of significance and frequency.

Respondents came from medium to large sized companies. Medium sized companies employ over 250 part time and full time employees, while large sized companies employ over 1,000. The managers interviewed for the study represent the following industries: Healthcare, Association, Hospitality, Communications, Trade/Construction, and Retail (see Table 1).

n	Industry	Company Type	Company Size
5 (31.25%)	Healthcare		
2 (12.50%)		Hospital	Large
3 (18.75%)		Pharmacy	Large
3 (18.75%)	Association	Non-Profit	Medium
3 (18.75%)	Hospitality		
1 (6.250%)		Hotel	Large
2 (12.50%)		Restaurant	Medium
2 (12.5%)	Communications	IP Communications	Large
2 (12.50%)	Trade/Construction		
1 (6.25%)		Construction	Medium
1 (6.25%)		Architecture/Design	Medium
1 (6.25%)	Retail	Department Store	Large
Total	16		

Table 1. Participant Demographics

Results

The analyses and resulting findings address five main questions regarding entry level skills in the workplace.

Question 1: What technical skills do you expect students to have when they enter the workplace?

The primary skills expected consisted of: (a) computer skills, (b) graphic design, (c) social media, (d) data analysis, and (e) marketing/sales (Table 2). Participants indicated that entry-level employees with knowledge of Microsoft Office®, basic computer and typing skills are suitable candidates. Managers indicated that graphic design and marketing are complementary skills to create appealing visuals for a target audience.

Analyzing, navigating, and utilizing social media is also an important skill to have in the current digital and Internet age. Employers realize that individuals can be influenced through social networking. Managers want transitioning students to use social media to attract business.

Question 2: How do you suggest

educators teach these technical skills?

Experiential learning was a significant emerging theme (Table 3). Knowledge of the company and knowledge of business theory are basic skills required for entry-level employees. Businesses prefer hiring employees who can apply knowledge in the appropriate context.

Suggestions on instruction included teaching specific software programs, business projects, and hardware skills. With training, students can apply knowledge of the industry to the company's projects. Three participants felt it is critical for students to determine the credibility of authors and written information on the Internet. Managers' responses also indicated that teaching

Skills Expected	Number of Participants (n = 16) Sigma = 32	Percentage of Participants
Computer skills	16	100%
Graphic design	5	31.25%
Social media	4	25%
Data analysis	4	25%
Marketing/sales	3	18.75%

Table 2. Skills Expected for the Workplace

marketing and sales techniques aid in attracting consumers.

Question 3: What kinds of learning environments do you think would foster these skills?

Nearly 44% of managers recommended a lab environment to learn the technical skills that result in more experience and hands-on knowledge (Table 4). A communicative atmosphere emerged as respondents conveyed the requirement of sharing ideas and decisions effectively with peers, clients, and superiors. Managers believed that a critical thinking and problem solving environment is advantageous when unanticipated situations occur. Students should be encouraged to create strategies that carefully manage risks and deliver contingency plans.

Question 4: What activities can educators implement to prepare students for the workplace?

Respondents (87.5%) stated that simulations such as creating mock presentations, revising a company's marketing campaign, and mirroring a typical work day are appropriate (Table 5). Managers recommended communicative activities such as writing assignments, oral presentations, and creating graphs and spreadsheets. Team presentations can also imitate a workplace environment.

Futurists such as Johansen recommend immersion into environments to

achieve the full experience of the requirements of industry positions (Barnes, 2010). Educators can invite speakers to the classroom to discuss professional experience, and organize career and shadow days. Through collaboration, learners can gain real-life perspectives in school.

Question 5: How does your business collaborate with schools to assist with student learning and/or transition?

Nine participants (56.25%) indicated that they offer on-the-job training

Teaching Skills	Number of Participants (n = 16) Sigma = 32	Percentage of Participants
Offer experiential learning opportunities	9	56.25%
Instructional strategies	5	31.25%
Teach specific software programs	4	25%
Teach specific subjects	4	25%
Teach hardware skills	4	25%
Teach information literacy	3	18.75%
Teach marketing/sales	3	18.75%

Table 3. Teaching Technical Skills

including job shadowing, internships, and apprenticeships. Career days and career fairs are activities in which 37.5% of companies participate (Table 6). The managers believed it is important for students to visualize position requirements.

Overall, interviews with working managers yielded information on the specific skills they required, suggested appropriate learning

environments, and identified the cognitive skills expected from creative and innovative thinking.

Discussion

All respondents indicated the importance of starting employment with knowledge of Microsoft Office® and the ability to text and type. Graphic design, social media, and marketing are other major skill sets that emerged as important through the interview. Some managers (25%) require data analytical skills. Respondents (56.25%) suggested that students learn technical skills through hands-on experience. Proactive teachers seek experiential learning opportunities such as providing technical tutorials and having students work in computer labs. Schools can begin to implement a learning environment that

encourages learning by doing.

The interviewed managers recommended a technology lab that includes learning tools such as ipads, iphones, and ipods in addition to computers. Constructive feedback to students should include workplace expectations. Students can also gain practical experience through critical thinking and inquiry based learning environments.

A simulation of the work environment will provide students with a visual of the future. Some interview answers suggest that activities should consist of having students brainstorm in a boardroom and create workplace presentations. Collaboration creates the opportunity to better understand how to work with other people and enhance communication skills. Postsecondary students must recognize the necessity and value of working with others.

Virtual immersion into the business world can occur when educators invite employees from various businesses to share real-world company issues, projects, and culture (Barnes, 2010). This collaboration can provide authentic assessment and immediate feedback to students. On the job training such as internships, apprenticeships, and job shadowing are offered by 56.25% of the companies. Managers (37.5%) also participated

Classroom Activities	Number of Participants (n = 16) Sigma = 26	Percentage of Participants
Simulation	14	87.75%
Communication	6	37.5%
Team collaboration	3	18.75%
Immersion	3	6.25%

Table 5. Classroom Activities

in career days and career fairs. The remaining respondents stated that they would also accept invitations from teachers to participate in career or business awareness activities. The intention is to reduce apprehension for students' transition into the workplace by being as proactive as possible.

Conclusion

There are a variety of learning activities that teachers can use with students to assist transition into the workplace. Understanding the expectations of

Learning Environments	Number of Participants (n = 16)	Percentage of Participants
Lab	7	43.75%
Communication	5	31.25%
Critical Thinking/ Problem Solving	4	25%

Table 4. Learning Environments

the industries that are of interest to postsecondary students is important to a successful transition. Students benefit from the guidance of their school, community, and local businesses collaborating to aid students in forming realistic expectations of life after school. This collaboration will bridge the transfer of learning from the classroom to the workplace.

A qualitative research method was used to determine the perspectives and experiences from managers on how to transition postsecondary students into the workplace. Perspectives from students in their transitional success would also be helpful in determining how they could have

subjective than objective, quantitative methods can also be considered for future research (Creswell, 2004). Future research might also include surveying graduates to determine if a correlational relationship exists between transitional methods and graduate performance measures in the workplace. Ensuring a successful student transition into the workplace can aid students in their early career stages on the way to becoming exceptional workers, managers, and entrepreneurs.

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Business/School Partnerships	Number of Participants (n = 16)	Percentage of Participants
On the job training	9	56.25%
Career day/fair	6	37.5%
Nothing at moment	1	6.25%

Table 6. Business/School Partnerships

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Imani Akin, Ed.D

(Continued from page 13)

A more traditional model, especially at community colleges, is for students to complete remedial courses before they can enroll in their chosen programs. But here at the Nashville center, students enroll in programs, then go through an assessment; an untimed, computer based diagnostic test that evaluates them in six areas, including applied math, reading, and locating information. On the basis of the test results, each student gets an individualized learning plan to help improve any areas of weakness, such as conjugating verbs or multiplying fractions.

Students work on those plans in a "foundations lab." The amount of time they spend there varies from a couple of weeks to several months, depending on how much they need.

Donna M. Johnson, who is studying to be an aesthetician, spent a week of mornings in the lab, brushing up on math, especially how to decipher work problems. "Math was kicking my butt," she says. "I had been out of school so long, I really needed the help."

Ms. Johnson, 41, has dyslexia, which compounds her difficulty with work problems. But the foundations lab's senior instructor, Danny B. Gardner, helped her understand them, she says, by using familiar names and cities.

Incorporating the lab into students' schedules is so seamless that some don't recognize they are taking part in developmental education, says Mr. King, the vice chancellor. "For students," he says, "the foundations lab is just part of their academic program."

At community colleges, students who must go through remedial courses can get discouraged and drop out. With remediation embedded, some researchers say, students may be more likely to maintain motivation and not feel as if they are losing time and money before progressing with their chosen programs.

"The model," Mr. King says, "really makes a difference with our completion rates."

Applying the Lessons

Elton E. Stuckly, Jr. president of Texas State Technical College at Waco, says he was amazed when he first read about the Tennessee system's high graduation rates. It

was hard to believe," says Stuckly, who is also the vice chancellor for instructional services at the Texas State Technical College system.

The Texas system's graduation rate is only 24 percent. "We need to figure out a way to graduate more students," he says. So with his interest piqued, Mr. Stuckly organized a visit to Tennessee. His own state's plan to introduce performance-based financing of all public colleges later this year furthered spurred him.

In June, Mr. Stuckly and the vice presidents of instruction at each of the Texas system's four colleges visited the Nashville center. He liked the small classes, he says, as well as the concepts of course hours, block scheduling, and embedded remediation.

Mr. Stuckly is hopeful that he can incorporate some of those strategies on his campus. In fact, he was impressed by how instructors in Nashville juggled students at different levels of progress that he will send several instructors from his system to visit.

Managing Editor's note:

Texas State Technology College WACO and Texas State Technology College Sweetwater are ATEA institutional members

editor's notebook

Fall 2012

by Sandra C. Coyner, Ed.D.



Although the proportion of responsibility varies among postsecondary education institutions, the components of faculty work (teaching, research, and service) are a universal expectation. The 1916

creation of the "Wisconsin Idea" identified the importance of research to support teaching in postsecondary education. The Wisconsin Idea further introduced the concept of postsecondary institutions using their intellectual resources for community service and advanced the belief that purposeful connections between institutions and states offered substantial benefits. We are shining stars by providing valuable technical education through the teaching, research, and service of postsecondary technical educators.

Eugene Rice (1996) identified seven aspects of the role of a postsecondary academic professional:

1. Research is the central professional endeavor and the focus of academic life
2. Quality in the profession is maintained by peer review and professional autonomy
3. Knowledge is pursued for its own sake
4. The pursuit of knowledge is best organized by disciplines and departments
5. Reputations are established in national and international professional associations
6. Professional rewards and mobility accrue to those who persistently accentuate their specialization
7. The distinctive task of the academic professional is the pursuit of cognitive truth (p.8)

Writing for the ATEA Journal addresses many of these aspects; specifically the importance of research, the opportunity for peer review, the pursuit of knowledge, and the importance of professional associations. As "The premier association for the postsecondary technical

educator, with an emphasis on professional development", ATEA offers you opportunities to actively participate and develop professionally. Conference attendance is an excellent way to interact with colleagues and writing for ATEA Journal is an especially effective way to improve and complement your teaching, research, and service. The ATEA Journal provides a venue to share your teaching and research with your professional colleagues.

Your teaching, research, and service activities are important to the profession and sharing your knowledge and experiences through our professional publication is an excellent way to strengthen your work and the work of others in our profession. Please consider submitting a manuscript for publication so that your colleagues can benefit from your educational experiences.

Rice, R. E. (1996). Making a place for the new American scholar, Volume 1. (New Pathway Series, American Association for Higher Education Forum on Faculty Roles and Rewards). Washington, D.C.: American Association for Higher Education.

Sandra C. Coyner, Ed.D. is the Editor of the ATEA Journal

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region reports

Region 5 the Creative Edge

Lake Area Technical Institute Watertown, South Dakota Oct. 11-12

by: Dr. Sandra Krebsbach, Executive Director ATEA

Region 5 chose “The Creative Edge” as the theme for their October 11-12 Conference. 40 different break-out sessions showed that learning can be enjoyable and contagious no matter what the subject because it has to do with being creative in the delivery method.

“The conference provided concepts on how to make the student want to come back for more; resulting in a better student, a higher retention rate, an outstanding reputation, and an amazing end product. The host, Lake Area Technical Institute, has the “credentials” in this area with a 76% completion rate and 91% of its graduates staying in South Dakota, building the health care, manufacturing and agricultural workforce that has produced Watertown’s thriving economy.

President Deb Shephard, Lake Area Technical Institute, in her presentation about the changes in technical education over the past decades, found the greatest change is: “Postsecondary technical education has been discovered. It is our golden moment and with that comes the responsibility to communicate what it takes to technically train the workforce.”



Kneeling, left to right: Shawn Lohr, Kris Zobel, Shelly Freese, Kory Hall, Nancy Iverson.

Middle row: Barry Stark (Keynote Speaker), Deb Ernst, Kim Bellum, Robin York, Rachael Maag, Jackie Coleman, Heidi Pelzel, Robyn Adler, Rhonda Stangl, Tim Page, Nicki Yackley-Franken, Amber Schleuner, Marie Polluck, Sandra Krebsbach(Exec. Dir. ATEA).

Back row: Mike Cartney, Dodie Bemis, Brad Heesch, Jason Goette, Brian Olson, Shawn Kulla, Keith Howe, Mark Wayt, Dan Zimprich, Kassie Storm.



Barry Stark

Keynote: “Using the Creative Edge”

Barry Stark, Lincoln Nebraska, Past President of the National Association of Secondary School Principals.

Speaking to the 100 faculty and staff from the northernplains states, Barry Stark called upon them to consider yourselves and the training programs you provide every bit an equal to the law, medical or engineering colleges that prepare young people for those careers. The 4 year stereotype has to co-exist with careers in the technical and skilled labor market. You play a huge role by making real-world possibilities a true reality for young people who will flourish and become super stars in the career paths.

He cited programs across the nation that are implementing career and technical education in K-12. These programs can improve low high school graduation rates by increasing student engagement and building positive relationships for students who have failed, or in danger of failing, to complete a high school diploma. They can see real world application. Full text available at ateaonline.org.



Faculty visiting the vendor areas. Attendees were from Nebraska, North Dakota, Iowa, Minnesota and South Dakota.



Region 5 Conference held in the Lake Area Technical Institute Student Center



Conference attendees gathered for lunch, keynote presentations. The tone was celebration of students trained and employed. The balloon and lunches served in classic lunch pails added to the fun as well as door prizes.



Jim Erdahl
Chair of Auto Body repair
NDSCS

Your invited to the 2013 Region 5 Conference

Oct 10-11, 2013

North Dakota State College of Science

Wahpeton North Dakota

Region 6 “Where’s the Money?” Funding technical education with foundation and government grants, and business equipment donations”

October 4-5, 2012

by: Dr. Sandra Krebsbach, Executive Director ATEA

When Dr. Mike Mires, Dean of Professional and Technical Workforce Education at North Idaho College and ATEA Board of Trustee, announced the date and title of the fall conference in Coeur d’Alene, he did not know that it would coincide with the announcement of a \$2.9M grant from the Department of Labor to his college and Empire Aerospace company to form a Center of Excellence in Aerospace. Congratulations to both.

With his team of L Rex Fairfield and Marie Price, Dean Mires delivered a top quality conference with Keynote Speaker: Jane Oates, Assistant Secretary of Labor and Employment and Training; Renee Bourquet, consultant whose clients have grants from the Bill and Melinda Gates Foundation; Mary Kaye Bredeson, Executive Director of the Center of Excellence in Aerospace in Spokane WA –traveled on international trade missions with Washington Governor Chris Gregorie; Carol Weigand, Air Washington Project Manager, Spokane Community College Representative; Steve Griffiths Jobs Plus and President Joseph Dunlap North Idaho College.

The teamwork in Idaho was further evident from the attendance of the Idaho Department of Labor, Susan Simmons and Ricca Lasso; and Todd Schwarz, State Administrator of Idaho Professional and Technical Education. Key leaders in Idaho postsecondary technical education attending were President Gerald Beck, College of Southern Idaho; Ross Scott Rasmussen Dean of Professional and Technical Education, Idaho State University, Will Fanning, Dean of Professional and Technical Education, College of Western Idaho; Ken Erickson, Dean of Workforce Training, Eastern Idaho Technical College and Robert Ketchum, Lecturer Curriculum and Instruction, University of Idaho and former dean at North Idaho College. Full conference program powerpoints on ateaonline.org.



Photo at Empire Aerospace—President Tim Komberec (fourth from the right) gave ATEA Region 5 conference attendees a tour of the operation in Hayden Idaho. Empire is a partner with North Idaho College in the \$2.9M grant from the Department of Labor for an Aerospace Center of Excellence.

Back row left to right: Ken Erickson, Workforce Training director, Eastern Idaho Technical College; Rich Wagner President of Dunwoody College of Technology and Vice President ATEA;

Front: Werner Brown of XCal Corporation conference vendor; Keith McClanahan Arkansas State University Beebe and Board of Trustee; Scott Rasmussen, Dean of PTE, Idaho State University; DeeAnn Bilben ATEA support; Dr. Harry Bowman Board of Trustee; Paul Perkins President Amatrol and Board of Trustee; Jerry Beck, President, College of Southern Idaho; Tim Komberec, President, Empire Aerospace; Sandra Krebsbach, ATEA Executive Director; Ron McCage Board of Trustee and Reed Chase Production Manager Empire



Assistant Secretary of Labor Jane Oates keynote dinner speaker

“ATEA’s focus on postsecondary technical education is unique among associations. I encourage ATEA to be a connector among its members and business and industry to share best practices across the nation.”



Steve Griffiths, Executive Director, Jobs Plus; and Joseph Dunlap, President of North Idaho College presentation “The Role of Community Colleges in Economic Development.”

President Dunlap and Mr. Griffiths work together in the Coeur d’Alene area. “We go out” to talk to businesses about their needs. Since 1987 Jobs Plus has brought in over 90 companies. Griffiths credits the team work of business, industry and government for their success.



Opening slide of the power point of Mary Kaye Bredeson, Executive Director for the Center of Excellence for Aerospace and Advanced Materials Manufacturing, Everett College, and Carol Weigand Project Coordinator, Spokane Community College, part of the Air Washington \$20M Department of Labor grant to the State of Washington to train the workers for the aerospace industry. (Full powerpoint at ateaonline.org).

The Technical College System of Georgia's Career and Technical Adult Education Course Articulation Assessment Project

by Ronald D. McCage, Ed.D., Kathryn Hornsby, Ph.D. and Ken Potthoff.

In Issue 1, Volume 4 of the July 2012 ATEA Newsletter, Dr. Larry Moser titled his presidential column, "What do you think?" which he also used as his closing sentence to challenge his readers to respond. Since the main focus of Dr. Moser's column was on the value of business and industrial certification, it caught my attention. I had been the Executive Director/President of the Career and Technical Education Consortium of States (CTECS) for 32 years and the CTECS has had interest in certification since the early 1990s.

By coincidence, not long after I read Dr. Moser's article the new Executive Director of ATEA, Dr. Sandra Krebsbach called as a part of her effort to touch base with all of her board members. During the conversation, Sandra asked me to explain what CTECS did and I told her that for the most part CTECS work with state agencies and other organizations to provide industry based standards and assessment systems for CTE; especially, as it relates to meeting the technical assessment requirements of Perkins IV. In the process, I elaborated on a project that CTECS was involved in with the Technical College System of Georgia (TCSG) that I thought she might be interested in as well as the ATEA membership since it involved the development and administration of several course level assessments that will be used for awarding post-secondary credit to secondary students that had taken an equivalent course

at the high school level. Upon completion of my explanation, Sandra asked if I would pull together an article for the Krystal Kleer section of the next ATEA Journal at which point I thought back to Larry's question. Given the nature of the CTECS relationship with TCSG, I advised Dr. Krebsbach that I would be involving Dr. Kathryn Hornsby, the Assistant Commissioner for Technical Education at TCSG and Ken Potthoff, the Deputy Executive Director of CTECS in the preparation of the article.

Dr. Ron McCage

Former President and Executive Director
Career and Technical Education Consortium of the States
ATEA Board of Trustee

In December 2010 a very strong partnership was established between TCSG, a system of 25 two year associate degree granting colleges and CTECS for the purpose of working together to create an on-going process and system for the development and administration of several course articulation assessments over an extended period. At that time six courses were chosen for what would later be referred to as Round I. These courses include:

- Culinary Arts
- Introduction to Welding Technology

- Introduction to Early Childhood Care & Education
- Financial Accounting
- Principles of Marketing
- Introduction to Construction

As these six assessments approached finalization during academic year 2011, the leadership of TCSG asked CTECS to continue to work with them to develop and administer eight additional course articulation assessments as a part of Round II:

- Refrigeration Fundamentals
- Introduction to Healthcare
- Medical Terminology

- Electrical Systems
- Introduction to Computers
- Principles of Cooking
- Computer Aided Design Fundamentals
- Introduction to Design and Media

In carrying out these types of projects, CTECS uses a streamlined version of its Technical Assessment System Design Model that is based on an adopt/adapt/develop strategy for making decisions regarding which resources should be brought to the table to satisfy a given need. What this means is that if the ultimate goal is industry certification and an

industry recognized process exists such as ASE, use it. If nothing exists the next option is to look for something that can be adapted with development being the last option with the ultimate test being, does it align to the standards you want to measure? Given Perkins IV reporting requirements, this point is especially critical since most students won't achieve the skills necessary to complete these certifications until well beyond high school, yet the powers that be still want to know where they are along the pathway toward their ultimate goal.

In implementing this model, it is important to know that CTECS provides the leadership and technical assistance to the process while TCSG provides the staff and post-secondary faculty that serve as subject matter experts for the Technical Advisory Committees (TAC) which play major roles throughout the process. It is also important to know that as it relates to TCSG, the process begins with the alignment of already existing tests items to a set of TCSG developed learning outcomes and competencies for each course that has been validated by the appropriate business/industry counter part(s). If items do not exist, CTECS trains the TAC members to write items using a set of well established guidelines.

CTECS starts its part of the process by conducting an extensive search of its own consortium resources and that of its partners and other national entities it has access to in order to identify potential items that the TAC can use to align to the existing TCSG competencies for each course. During the alignment process, CTECS asks the TAC members to identify gaps and to improve those items that need it so they can be better correlated with the course competencies which is more

formally referred to as the adaption of items to standards. When necessary, the TAC writers new items and aligns them to the standards as well.

Once the process of item bank adoption/adaption/development is complete, the assessments are piloted. Once pilots are finished, CTECS conducts an internal computer-based item analysis application in order to review the test statistics that focus on difficulty and discrimination indexes and response patterns. Afterwards, CTECS facilitates an item analysis with the TAC in order to identify any additional gaps for which items are needed for the actual assessment (s). Once the pilots are completed, CTECS works with TCSG faculty who act as subject matter experts for the purpose of recommending the cut score for each assessment using the modified-Angoff which is arguably the most researched and best known cut-score methodology in existence. More important, it is considered to be highly defensible in any legal environment which is very critical if the tests are to be used for high stakes purposes. The last step in the TCSG process is to present the TAC recommended cut-scores to the TCSG's President's Council for approval.

It is important to note that all TCSG assessments are conducted online using a very advanced testing system capable of providing very robust post-testing reports that can be used for articulation requirements, and state, local, or regional accountability, as well as for program improvement. In addition to the TCSG activity highlighted here, CTECS has done similar work in Arizona, Kentucky, Nevada, Oregon, Virginia and South Carolina among other states. For more information contact Ken Potthoff kpotthoff@ctecs.org and/or Kathryn

Hornsby khornsby@tcsge.edu.

In closing, from the CTECS perspective, the TCSG project has been successful because of the direct involvement of the highly professional staff at the TCSG headquarters in Atlanta as well the quality of the instructors volunteers that they have been brought to the table at every point in the process. Most critical, CTECS has been viewed as a third-party facilitating partner by TCSG instead of an arms length contractor, and as such, each has contributed to the other.

Kristal Kleer is the opinion of the author, and as such, is not reflective of editorial or ATEA policy. It is a regular feature in the ATEA Journal. Readers may contribute their professional opinion, not to exceed 750 words.



Ken Potthoff
Deputy Executive Director
CTECS



Kathryn Hornsby, Ph.D.
Assistant Commissioner
for Technical Education
TCSG

Ronald D. McCage, Ed.D. (Not Pictured)
Former President and Executive Director
CTECS
ATEA Board of Trustee



What is the American Technical Education Association?

ATEA is an autonomous, non-affiliated international association devoted solely to the purposes of postsecondary technical education. It is an organization dedicated to excellence in the quality of postsecondary technical education with emphasis on professional development. ATEA is a driving force behind workforce development.

ATEA was founded in Delmar, New York in 1928 and incorporated as a non-profit professional education association in 1960. In 1973 the national headquarters moved from New York to Wahpeton, North Dakota to the campus of North Dakota State College of Science. In 2012 the national office moved to Dunwoody College of Technology, a private non-profit technical college founded in 1914 in Minneapolis.

American Technical Education Assn.
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 www.ateasonline.org

Mission:

The American Technical Education Association (ATEA) is the premier association for the postsecondary technical educator with emphasis on professional development. The organization is dedicated to excellence in quality of postsecondary technical education focusing on practical teaching ideas and best practices. ATEA recognizes outstanding performance and leadership and provides a network for career connectivity.

Goals:

- Promote high quality technical education.
- Advocate the value of technical education to society.
- Disseminate information regarding current issues, trends and exemplary practices in technical education.
- Partner with educational institutions, business, industry, labor and government to enhance workforce development strategies.

Top Ten Reasons to Join ATEA:

10. Workforce Development
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Annual Membership Rates:

Individual Members	\$75
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- Teach, serve or administer technical education at the postsecondary level.
- Hire technically prepared employees.
- Support or provide technical education pathways: secondary to postsecondary or postsecondary to university levels.

To join online or print a membership form, please visit: www.ateasonline.org/Membership

Email questions on membership to: info@ateasonline.org

I invite you to fully participate in ATEA by checking the webpage for information on ATEA events, opportunities to present, the awards nominations, and be in the Member Spotlight. There are ATEA email announcements once a month, to keep you updated. If you are not getting them, please contact the ATEA office at 612-381-3315 or info@ateasonline.org

Dr. Sandra Krebsbach *Executive Director*

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