



CTE'S ROLE IN LEADERSHIP DEVELOPMENT

IN THIS BRIEF:

This Issue Brief will explore the integral role CTE curricula and programs can play in addressing the leadership skills gap facing employers. CTE fosters future leaders by providing leadership training in class and through related activities, by placing students in workplace contexts where they can receive mentorship and observe leadership in action, and by empowering students with authentic leadership roles.

A gap exists between the skills employees have and the skills employers want. Despite a recession and high unemployment rates, an estimated 3 million jobs remained unfilled in 2012.¹ In a poll of employers, more than half reported they were unable to recruit workers for open positions,² and human resource professionals predict a lack of workforce readiness will impact employers for years to come.³ While this skills gap exists on a number of fronts, among employers' desired skills, leadership—the ability to inspire others to achieve a common goal—is often cited as one of the most critical, but deficient, skills.⁴

In the past, learning how to motivate others occurred in the workplace while moving up the corporate ladder. However, as many experienced employees in today's workforce near retirement and jobs become more complex as well as simultaneously collaborative and self-directed, it is becoming more important that workforce entrants come equipped

with leadership ability and experience. The majority of employers now believe that preparing the workforce with prerequisite leadership skills is the educational system's responsibility.⁵

While providing students with leadership skills can pose teaching and assessment challenges, career and technical education (CTE) courses and initiatives, which often involve teamwork and project-based learning, provide ideal opportunities for students to learn, observe and apply leadership in work-related situations in preparation for their future careers.

The Concerns

LACK OF ON-THE-JOB TRAINING FOR FUTURE LEADERS

When asked to choose which skills are most needed in today's workplace, employability skills,

such as collaboration, communication, professionalism, problem-solving and leadership, often rank highest. While academic and technical skills remain crucial, skills like leadership have risen higher on employers' lists than ever before. For instance, a recent study of employer-identified skills gaps highlighted leadership as a skill very important for successful job performance.⁶

Traditionally, leadership was a skill most often learned as workers gained experience and transitioned into positions requiring gradually more responsibility. Promotions typically resulted in increased management of others, and workers often received training and mentoring from more experienced workers along the way. However, today's workplace does not afford as much time or opportunity for those entering the workforce to methodically move up the corporate ladder or to learn from those who have.

Complicating the changing nature of jobs are changing workplace demographics. Baby boomers, adults born between 1946 and 1964, make up a large portion of the working population and are expected to begin retiring soon,⁷ potentially leaving behind not only a deficit in workplace leadership, but also fewer opportunities for new workers to learn from more experienced ones.

Despite the impending dearth of leadership, according to the Society for Human Resource Management, only 23 percent of human resource professionals surveyed reported their companies had taken concrete action to address this problem internally.⁸ This will leave many workers without the leadership skills needed to be successful in today's workplace and without any on-the-job training to acquire such skills—and leaves a big gap to fill for the education system.

 **Percentage of human resource professionals surveyed who reported that job applicants in their industry have leadership skills gaps, according to the Society for Human Resource Management.²**

39%

LACK OF EDUCATIONAL OPPORTUNITIES TO LEARN, OBSERVE AND PRACTICE LEADERSHIP

With both an impending shortage of experienced workers and waning opportunities for on-the-job mentorship, educational opportunities for leadership teaching and training are not only essential, but also expected by employers to guarantee workplace preparedness. As far back as 1991, the U.S. Department of Labor Secretary's Commission on Achieving Necessary Skills (SCANS) released a report calling for schools to teach many of the employability skills now found deficient by business leaders, including numerous aspects of leadership.⁹ Yet, despite this call, according to Thomas J. Donohue, president and chief executive officer of the U.S. Chamber of Commerce, education has not kept pace with the demands of the 21st century.¹⁰

To develop leadership skills in today's students, explicit instruction about leadership must be coupled with opportunities for immersion in leadership.¹¹ Unfortunately, many students lack such opportunities.

One likely obstacle to more widespread teaching of leadership and other employability skills is that these abstract skills do not lend themselves well to the same methods traditionally used to teach and assess core subjects. Practicing leadership requires a group and a goal, and, to be successful at it, a student must learn how to inspire confidence, instill trust and foster cooperation, tasks impossible to teach solely with lectures or textbooks or to practice and test exclusively with pen and paper. Furthermore, while proving proficiency in basic skills and knowledge usually requires a student to do so without the help of others, demonstrating successful leadership not only allows group cooperation to complete a given task, but requires it.

With the recent adoption of Common Core State Standards in English Language Arts and mathematics by almost all states, high schools are moving toward aligning their curriculum with career and college readiness expectations in these areas. The majority of states consider the new standards to be more rigorous,¹² and, while the improved rigor and higher-level application of academic skills is needed and welcome for career and postsecondary preparation, the standards do present challenges to the inclusion of direct instruction in other areas, such as more abstract employability skills like leadership. Though ideally,

according to Lauren B. Resnick, who worked on the 1991 SCANS report, the two agendas—improving both academic and employability skills—should be integrated,¹³ to date, there is little conversation about incorporating leadership instruction to support the Common Core and little focus on this integration in teacher preparation and professional development programs.

Intentional leadership development, along with real-world work experience, is wanting at the postsecondary level as well.¹⁴ This lack of exposure to workplaces, according to Diane Barrett of USA TODAY, may contribute to workforce entrants' deficiency in leadership skills. Even those with college-level education often lack a "familiarity with the business world and with corporate cultures when they arrive at the workplace." In addition, the vast majority of college graduates were rated deficient or merely adequate in leadership skills by employers in a 2006 survey.¹⁵

CTE Provides Solutions

The impending workplace leadership deficit, combined with the curricular time and complexity necessary to develop effective leadership skills, points to the importance of CTE initiatives. Typically project-based and career-focused, CTE programs not only provide multiple opportunities for students to step up and lead, but often require them to. For example, CTE coursework and activities like Career and Technical Student Organizations (CTSOs), the Junior Reserve Officers' Training Corps (JROTC) and college-level ROTC are "structured for student leadership success as well as academic achievement."¹⁶

CTE programs and related initiatives foster future leaders by teaching students to lead through in-class and associated leadership training, by placing students in workplace contexts where they observe leadership in action and by empowering students in authentic leadership roles.

TEACHING LEADERSHIP

One of the challenges to teaching leadership is the ambiguity and nuance of the concept. In an informal survey of managers, administrators and professionals, for example, respondents described leadership as a skill, a position, a responsibility, a process, a relationship or an experience, among other definitions.¹⁷ Because of this abstractness,



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effective leadership development requires a multifaceted approach that integrates formal instruction to help students conceptualize effective leadership with opportunities to experience leadership.¹⁸ Many CTE initiatives prove successful with leadership training because they do not overlook the need to teach leadership theory and identify the specific actions and qualities that make someone an effective leader.

Explicitly defining leadership and its underlying qualities is beneficial for both teachers and learners. In 2008, when the state of Washington's Office of the Superintendent of Public Instruction (OSPI) decided to integrate leadership development throughout its CTE curriculum, staff recognized that the elusiveness of a concrete or unified definition of leadership may present a challenge for identifying best practices for educators. OSPI created a leadership development standards document that not only identified individual, group and community leadership skills, but provided instructional and assessment ideas for teaching leadership.¹⁹

Arguably one of the most rigorous and effective career-related leadership curriculums is that used throughout military education, from high school JROTC programs to the Army's Maneuver Captains Career Course, a 22-week continuing education course in leadership. The military is both one of the country's largest employers and one of the largest providers of career preparation, making it an integral part of the country's CTE system. Because workforce entrants in military careers are often expected to take on enormous responsibility for both people and equipment, potentially in life-threatening situations, rigorous and specific leadership education has long been an important component of military training. At all levels, leadership development

begins with instruction about leadership theory, which teaches students motivational principles, individual and group management practices, decision-making skills and interpersonal relations.²⁰ Recognizing character development as a necessary precursor to effectively leading others, self-assessment and self-development are also prominent aspects of the leadership curriculum.

Like JROTC, CTSOs are not-for-profit, co-curricular organizations that provide career-related learning and leadership opportunities to students in CTE programs. Participants can run for formal leadership positions, participate in leadership-focused competitions, and lead project teams for community service or contests at the regional, state and national levels.²¹ These organizations also provide explicit leadership training to students through a variety of approaches, from classroom instruction to workshops and conferences. For example, the National FFA Organization utilizes a LifeKnowledge curriculum to teach students conflict management, strategic thinking, personal goal-setting and business communication, many of the components necessary for effective leadership.²²

Additionally, while characteristics of good leadership overlap, some careers require more specialized or situational knowledge for effective leadership. Since many CTE initiatives are career-specific, they provide ideal venues for focused leadership training. This can be clearly seen in Western Carolina University’s Kimmel School Construction Training Program, a summer program for high school students aimed at addressing worker skill shortfalls. The program combines specific instruction in “Basic Crew Leadership,” including training in adherence to Occupational Safety and Health Administration regulations, with more general teambuilding and leadership practice.²³

EXPOSING STUDENTS TO EFFECTIVE LEADERSHIP

Equally important to providing direct instruction is offering students the chance to observe and engage with effective leaders in hands-on and real-world experiences, such as through community involvement, internships, job-shadowing and mentoring.²⁴ Classes and programs that include students who span grade levels, as most CTE

In response to the exceptional level of responsibility and accountability of service men and women, the Army has created excellent leadership training and curriculum. Available to students bound for either military or civilian career paths, Army leadership training combines instruction, simulated practice and authentic leadership roles within its high school and college programs.

At the postsecondary level, Marion Military Institute (MMI) in Alabama offers a two-year, accelerated leadership development program. One of only five military junior colleges in the country, MMI offers ROTC in addition to a Leadership Education Program (LEP) for those seeking to enter non-military careers or to transfer to universities. While these are separate programs, all students wear uniforms, live on campus and participate in military protocol together.

Leadership training is embedded in all aspects of the school experience. Students are taught leadership theory and given the opportunity to apply what they

learn with tactical decision games in class and training exercises in the field. Leadership roles, such as platoon leader, rotate among students, allowing them to make decisions for high-responsibility situations, such as a reconnaissance mission or platoon movement under fire. Students are encouraged to take risks, and each exercise ends with feedback from both teachers and those under their charge.

LEP and ROTC students who have attended MMI for at least one semester may be appointed to the Corps Commander or ROTC Commander positions, or sometimes both, potentially assuming leadership for approximately 400 students. Subordinate leaders, such as the executive officer, operations officer and personnel officer, among others, work under the Corps and ROTC Commander(s). Together, they are responsible for disseminating information to the student body, organizing formations, conducting uniform inspections, monitoring student behavior and attendance, and organizing regular participation in formal parades, among other leadership tasks.

initiatives do, are particularly effective because they provide opportunities for the more experienced students to tutor and mentor the less experienced students.²⁵ The mentoring relationship not only improves leadership in the mentors, who are given responsibility for someone else's learning, but also in the mentees who observe leadership in action.

One example of this can be found at Eureka High School in California, which includes a mentorship opportunity in its HealthPlan integrated academic career pathway program. Students in their sophomore year apply with an essay for student blood drive coordinator positions. Those selected must shadow the current junior-year coordinators, who are responsible for all aspects of running the drives, including communicating with the local blood bank, coordinating with teachers, recruiting blood donors, managing necessary donor permission slips and soliciting food donations for the blood donors.²⁶

Mentorship is also a strong component of the JROTC program. Students follow a chain of command, enabling lower classmen to observe the upper classmen lead, teach and make decisions, before assuming the roles themselves.²⁷ The mentors, on the other hand, experience authentic responsibility for others, which can instill in them genuine concern for the success of the larger group, a key component of effective leadership.

Many CTE initiatives go beyond the classroom as well, providing experiences in which students can observe how decisions and interactions affect companies and other work environments—aspects of leadership critical for later career success. On a broad scale, Wisconsin's Youth Apprenticeship Program offers one- and two-year programs that combine worksite experience with related classroom instruction in a wide range of career areas. Juniors and seniors spend part of their day in career-related classes and part of their day in a structured on-the-job mentorship.²⁸

In another example, the National Academy Foundation (NAF) has developed a comprehensive high school educational model that integrates career-focused curricula with real-world learning experiences in the areas of finance, hospitality and tourism, information technology, engineering and health sciences. Through job-shadowing, site visits and internships, including a summer-long paid internship, NAF academy students are exposed to multiple business leaders and work environments throughout high


school. For many students, these workplace experiences result in career mentorships that last through college and beyond. The academies, which can either be standalone high schools or smaller learning communities within a larger high school, operate in 162 school districts across the United States and have partnered with more than 2,500 companies.²⁹

At Ponitz Career Technology Center in Dayton, Ohio, the Business Professionals of America (BPA) student organization includes approximately 10 percent of the student body and plays an integral role in student leadership development. In 2011, the Ponitz video production team won regional and state BPA competitions with a public service announcement warning about the dangers of texting while driving. BPA competitions, like those of other CTSOs, create real-world leadership opportunities by providing students the opportunity to manage project assignments and deadlines similar to those they would encounter in the workplace.

For their texting video, Ponitz student leaders planned and executed the entire project, including creating a production timeline and plan of action, writing the storyboard and an original script, keeping the project on schedule and problem-solving throughout the production. Students also collaborated with digital design students, the police department, a church and various community members to create realistic scenes—gaining valuable skills in cooperation and management of diverse teams. According to Deb Pitstick, Ponitz BPA adviser and media arts instructor, competition projects do not always run smoothly, and the students get frustrated. But those experiences, where students get to try, fail and figure out how to adapt, contribute significantly to their leadership development and ability to lead complex tasks in the future.

Pitstick says that attending the state and national competitions offered by BPA also enhances student leadership development. Ponitz students get to meet and interact with students from diverse cities and backgrounds as they engage in targeted training, opening a much larger world for many of them. Ponitz students learn that not only do they have a place in that larger world, but they can compete in it as well.

Postsecondary CTE programs also provide ways for students to learn from leaders in workplace settings prior to entering the workforce. At Piedmont Technical College in Greenwood, South Carolina, for example, the Diversified Agriculture Program devotes a significant portion of time to giving students a well-rounded view of how modern farms work by having farmers who have recently entered production agriculture come talk to the students about changes in the field. Additionally, during the summer of the students' second year, they participate in an internship on a working farm or in an agricultural business, receiving mentorship from industry leaders and gaining real-world agricultural experience.³⁰



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EMPOWERING STUDENTS TO LEAD

Learning and observing leadership provide essential scaffolding for leadership development. But it is only through authentic leadership opportunities—projects where teachers step into the background and allow both setbacks and successes to fall completely on students—that students can fully internalize how to successfully lead others. Student-led CTE initiatives enable students to experience communication and execution challenges and discover how their actions or inactions, and professionalism or lack thereof, directly impact the success or failure of an endeavor. Within CTE, opportunities range from classroom activities, such as leading in-class teams, to competitions and community projects, to full-blown student-run businesses, providing a wealth of leadership experiences to students.

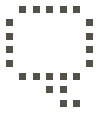
For instance, as JROTC participants progress through the program, they experience the challenges of leading other cadets. In the JROTC program at Lowndes High School in Georgia, a flight commander and a second-in-command flight sergeant lead classes, monitor student behavior during

At Eleva-Strum High School in Wisconsin, technical education teacher Craig Cegielski created Cardinal Manufacturing, an entirely student-run machine shop. While Cegielski mentors from behind the scenes, student employees lead every aspect of running the business, including meeting with clients, consulting with engineers, completing orders, maintaining equipment and advertising. “We try to replicate every aspect of a manufacturing business,” said Cegielski. “Students work with industry on a daily basis.”

Cardinal Manufacturing usually has anywhere from eight to 15 jobs in process at any given time, and all of the student employees get to lead individual projects based on their areas of expertise. Students are also assigned responsibility for an area of the shop, where they must maintain equipment, some of which is worth more than \$50,000. If a machine malfunctions, the student must troubleshoot the problem and communicate with the parent company, if necessary. It is also up to the students to research and recommend new equipment purchases.

Students interested in working for Cardinal Manufacturing take prerequisite CTE classes during their freshman and sophomore years. They then must apply with a resume and go through a formal interview process. Once hired, they’re trained and mentored by senior-level student employees. As the company has grown, it has begun to explore hiring students from Eleva-Strum’s other CTE classes, including business, marketing and engineering.

In the five years since the business was started, students have served more than 100 different customers. They have worked with a wide range of materials and manufactured everything from fixtures for a large manufacturer of air filters to a custom wood stove to a vehicle transmission part that can no longer be purchased, among many other specialized jobs. Through such real-world work and leadership experience, “students can see how their decisions and mastery of skills play a vital part in helping or hurting the growth and success of the business.”³⁸



Employers have made it clear that leadership skills are critical but often lacking in potential employees. More opportunities need to be provided within the education system for students to learn, observe and practice these skills.

class, perform uniform inspections, teach drills and conduct performance reviews. When a junior cadet receives a poor review, it is up to the flight commander and sergeant to counsel the student, first verbally, and then, if necessary, with a letter of counseling that documents the problem and provides specific suggestions for improvement, much like a business manager. JROTC instructors advise the senior cadets about their decisions, but they do so from behind the scenes, allowing the senior leaders to make mistakes and often “learn painful lessons” about leadership along the way.³¹

Service-learning projects that empower students to identify a community problem and design a way to solve or mitigate it are also particularly effective for leadership development³² and abound throughout CTE programs. One study that looked at student leadership development in a college-level service-learning program concluded that students “should be able to engage in issues that matter to them, and in which their work has real outcomes for themselves and their community.”³³ Through awareness of their larger community and its needs, students become more personally invested in the project and more eager to find ways to make it successful, including taking charge and problem-solving.

CTSOs often encourage leadership through service-learning projects. After discovering that teens age 14–17 make up the largest percentage of accident fatalities in South Dakota, the Family, Career and Community Leaders of America (FCCLA) student organization at Brookings High School in South Dakota began a year-long “Drive to Survive” project. Brookings FCCLA students created school displays, a docudrama and a public service announcement; wrote newspaper articles; participated in TV and radio interviews; presented to assemblies; conducted workshops; and testified before the state legislature, reaching an audience of more than 200,000. A texting and driving law passed the state House following the chapter’s legislative testimony, providing evidence of the power of student leadership.³⁴

Other initiatives that place leadership responsibility in the hands of students include student-run businesses,

an integral part of many CTE programs. While CTE teachers often support these ventures by providing necessary knowledge, skills and training embedded into the curriculum, specific business decisions are left to the students. At Lee College in Texas, business students run Books and Beans, an on-campus coffee and ice-cream shop. Students are responsible for management, hiring, inventory, marketing and accounting, and must submit a project analyzing the business’s operations at the end of the semester.³⁵ In addition, culinary students can be found taking the lead at in-school restaurants as part of their coursework. Students at Jacobson Culinary Arts Academy in Florida, for instance, take turns designing the menu and performing other key responsibilities for weekly lunches enjoyed by students and the public.³⁶

In the realm of finance, at John F. Kennedy High School in Paterson, New Jersey, students have primary responsibility for the success of a North Jersey Federal Credit Union branch housed on campus. While a teacher and a credit union employee provide supervision, 10th through 12th-graders in the school’s Business, Technology and Marketing Academy run and promote the bank, receiving both in-class and on-site training.³⁷

Conclusion

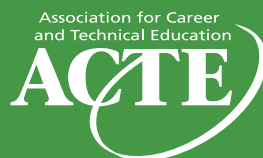
As the needs of the workplace change, it is up to education to respond. Employers have made it clear that leadership skills are critical but often lacking in potential employees. More opportunities need to be provided within the education system for students to learn, observe and practice these skills.

Clearly, CTE initiatives play a vital role in mitigating the leadership skills gap. They not only integrate leadership education, observation and practice with authentic leadership experiences but do so for a breadth of career interests. CTE is integral to ensuring that more workforce entrants are prepared with the leadership skills necessary for the workplace of today and of the future.

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