



TEC: Technical Education for Communities

The Research and Theory Supporting a Scalable Model



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Executive Summary

TEC: Technical Education for Communities is Cummins' global initiative that targets the technical skills gap through local vocational education programs.

TEC delivers a standardized education platform to help schools develop market-relevant curriculum, teacher training, career guidance and the practical experience needed by students. TEC partners with business, government and community organizations to increase access to good jobs and develop a stronger and growing employment base in communities across the globe. TEC aims to serve and improve Cummins communities through skilled workers with good jobs.

Why did Cummins launch TEC? Unskilled jobs are disappearing around the world. Workers today are required to operate and repair machines equipped with complicated electronic components. Factories use robotics. Almost everything uses computers. Workplaces are diverse, complex social systems. Jobs today require skills.

But our schools haven't kept up with industry needs. Millions of jobs are unfilled because people don't have the right skills to perform them. Some are basic—reading, math and language skills. Others are technical—the ability to measure, use tools and equipment or read blueprints. Often there are gaps in the ability to solve problems, communicate effectively, work in diverse teams or even just show up to work on time.

When unskilled jobs disappear and people lack the ability to succeed in skilled jobs, they fall into unemployment and poverty. Entire communities around the world are suffering from the effects of skills shortages.

So there's a critical need for education programs that develop industry-relevant skills to help people enter the modern workforce with success. That is particularly true for young people in emerging markets who don't receive skills training or are trained for jobs that aren't in demand in their communities. Many communities now realize their education systems haven't effectively provided skills training among those not going to universities.

They've also come to realize the promise of vocational education and training to solve this problem.

Researchers have studied vocational education systems around the world and compared outcomes, identified success factors and made predictions about program results. They have concluded that a successful technical vocational education program should:

1. Teach market-relevant skills
2. Deliver quality curriculum
3. Support effective teachers
4. Provide career guidance
5. Combine workplace and classroom learning

Those are the five framework elements of TEC. Since 2011, Cummins has developed curriculum, tools and processes to support each of those five elements and built TEC programs in schools around the world, with new programs and classes starting every year.

Together with students, parents, school leaders, and industry and public partners, Cummins is powering TEC to serve and improve communities through skilled workers with good jobs.

Global Experience

What is Technical Vocational Education and Training?

Technical vocational education and training generally means preparing people toward a particular line of work, whether that's manufacturing or hairdressing. Such programs typically are provided by states, non-governmental organizations (NGOs) and private providers, each with differing interests, administrative structures, financial incentives and traditions.¹

Technical and vocational programs can be one-time offerings or ongoing. Those younger than 30 years of age tend to utilize the initial educational opportunities at the beginning of their careers, commonly before entering the labor market.² Continuing trainings are often for those who have lost jobs.³

Despite the high wages those with technical vocational skills achieve, unfortunately such jobs generally suffer from low social status and weak interest.^{4,5} Technical and vocational programs have long been considered paths pursued only by underachieving students or those interested in less-prestigious careers.

The quality of technical vocational education and training has also varied greatly across regions. Countries in developing markets are faced with issues stemming from lack of funding, poor physical infrastructure and equipment, inadequately trained instructors and problems of communication and coordination, particularly in more remote areas.⁶

In spite of those challenges, corporations, NGOs, and governments are focusing significant effort and resources to incorporate technical vocational education and training into their markets. They have realized the immense potential such programs have at improving human conditions and economies on a macro- and micro-economic level.

International Spotlight on Technical Vocational Education and Training

In 2005, the chief civil servants of the education ministries representing the member nations of the Organisation for Economic Co-operation and Development (OECD)⁷ convened to discuss education and to identify the most pressing issues facing their respective countries. Though surprising at the time, their answer was clear: The need to focus on vocational education and training was urgent.

That conclusion was not an isolated incident. The OECD reemphasized the need for vocational education in 2011, when it declared that "better job-related training and education for the low-skilled (on-the-job training) would help to boost their productivity potential and future earnings. This requires measures to ensure that training markets perform better, as well as ensuring sufficient incentives for both workers and firms to invest more in on-the-job training."⁸

The OECD's conclusion rested on three factors: (1) Nations needed to provide high-quality goods and services to compete in a global market; (2) existing vocational systems lacked certain essential components, such as workplace training places and sufficient numbers of trainers; and (3) the vocational system, as a whole, had been neglected, resulting in societies having a poor opinion of vocational opportunities. The concern of the OECD ministers was confirmed during the global economic crisis of 2008-12 when rising unemployment placed the spotlight on the capacity of education and training systems to successfully transition individuals into jobs.⁹

In many economies, university education has been the traditional path to a successful professional career. The number of students who will enroll in university-level education worldwide will reach 262 million by the year 2025.¹⁰ In many markets, the options are plentiful for students interested in such programs. Students not bound for universities need and deserve similar opportunities.

1. Simon Field, Kathrin Hoeckel, Viktória Kis, and Malgorzata Kuczera, *Learning for Jobs* (Organisation for Economic Co-Operation and Development, 2010), 1.

2. Field, Hoeckel, Kis, and Kuczera, 26.

3. Field, Hoeckel, Kis, and Kuczera, 26.

4. William C. Symonds, Robert B. Schwartz, and Ronald Ferguson, *Pathways To Prosperity – Meeting the Challenge of Preparing Young Americans for the 21st Century* (Report issued by the Pathways to Prosperity Project, Harvard Graduate School of Education, February 2011), 15.

5. Field, Hoeckel, Kis, and Kuczera, 25.

6. Rupert Maclean and Hendrik van der Pol, *Participation in Formal Technical and Vocational Education and Training Programmes Worldwide* (UNESCO-UNEVOC International Centre for Technical and Vocational Education and Training, 2006), 30.

7. The OECD is composed of 34 countries, ranging from North and South America to Europe to the Asia-Pacific region, committed to promoting global development.

8. <http://www.oecd.org/social/soc/49499779.pdf>

9. Field, Hoeckel, Kis, and Kuczera, 24- 25.9. Geoff Maslen, "Worldwide Students Forecast Number to Double by 2025" *University World News Online Edition*, February 19, 2012 (<http://www.universityworldnews.com/article.php?story=20120216105739999>)

10. Geoff Maslen, "Worldwide Students Forecast Number to Double by 2025" *University World News Online Edition*, February 19, 2012 (<http://www.universityworldnews.com/article.php?story=20120216105739999>).

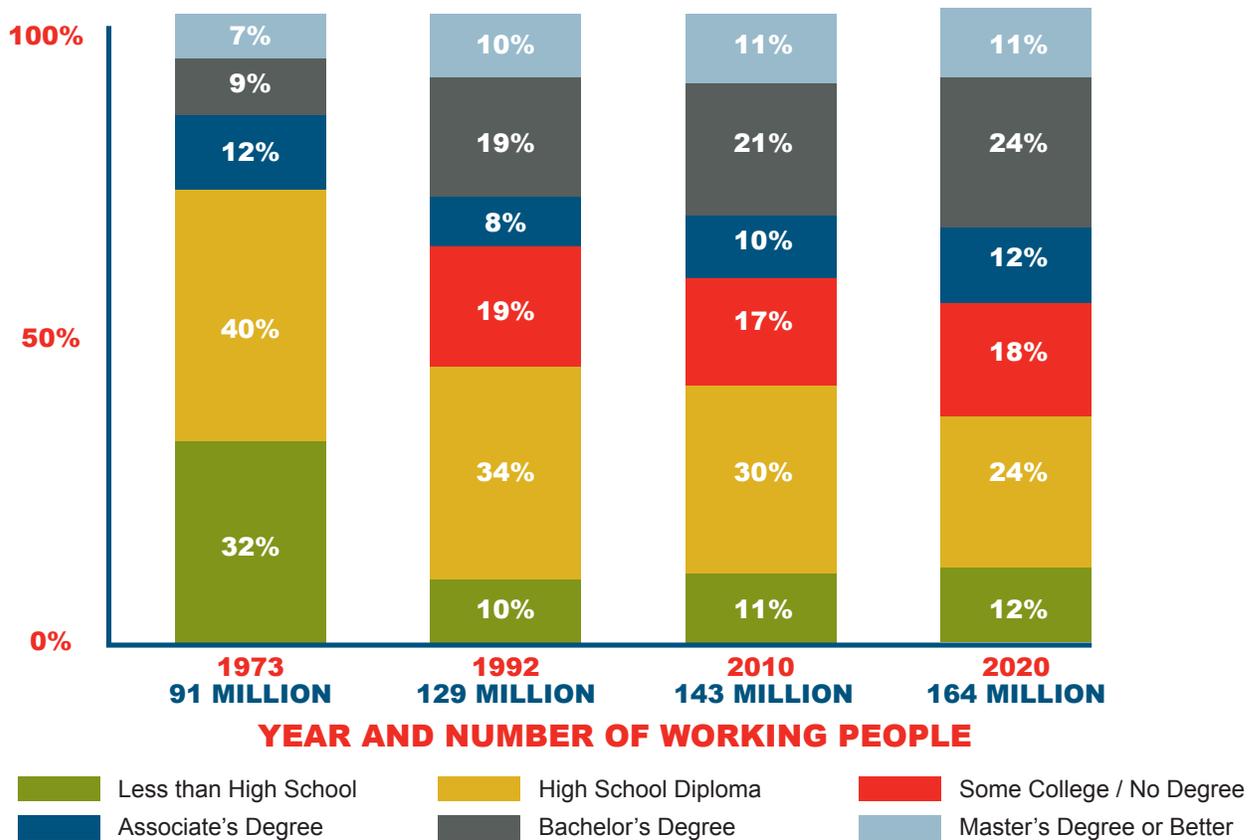
Sadly, the unskilled jobs that once existed for students with the equivalent of a high school education or less are disappearing. In 2013, more than 15 percent of youth ages 15 to 29 were neither in school nor in a job—an increase from years earlier. They need specific skills to be successful in the labor market. Unfortunately, in most areas of the world, vocational education systems are unprepared to meet their needs.

Almost every recent study on the outcomes of global technical vocational education and training initiatives contrast experiences in Europe, “where [it] plays a very central role in the initial education of young people,” with experiences in the United States, where very few participate in such programs.¹¹

Those experiences should inspire other countries—and the United States—to take a new approach to providing technical vocational education and training.

An Unsuccessful Model: The United States

In the United States in 1973, nearly one-third of the workforce’s 91 million people was composed of high school dropouts, and another 40 percent had not progressed beyond a high school degree. As a result, those with a high school degree or less made up 72 percent of the U.S. workforce. Fast-forward to the 2000s, and that picture has changed dramatically. According to the Center on Education and the Workforce at Georgetown University, “the U.S. economy will grow...to 165 million jobs by 2020...[when] 65 percent of all jobs in the economy will require postsecondary education and training beyond high school.”¹²



The United States’ inability to address the changing workforce has been stark: “[M]any high-school dropouts and those with no more than a high-school degree have fallen out of the middle class.”¹³

The impact of the U.S. failure to train skilled vocational workers is also felt acutely by employers.¹⁴ In 2014, more than four out of 10 businesses reported they struggled finding qualified employees to fill open positions.¹⁵ That shortage affects both business success and the lives of those individuals and the communities in which they live.

11. Field, Hoeckel, Kis, and Kuczera, 11.
 12. https://cew.georgetown.edu/wp-content/uploads/2014/11/Recovery2020.ES_Web_.pdf.
 13. Pathways, p. 2.
 14. Symonds, Schwartz, and Ferguson, 4.
 15. <http://money.cnn.com/2014/12/02/news/economy/jobs-hiring-trends-2015/>

The U.S. experience provides a glimpse into the grim future developing economies face if they follow the same path. It also brings into sharp focus the insights of the OECD education ministries and Georgetown's Center on Education and the Workforce: The skills required to be successful in today's global marketplace have changed.

Unfortunately, a significant portion of the world's population is not prepared. In 2011, more than 2.2 billion people worldwide lived on less than \$2.00 (USD) per day; 61 million children around the globe were not in school as of 2010,¹⁶ and unemployment rates, though stabilizing in some markets, are projected to remain high in countries like Turkey (10.2 percent), Brazil (6.4 percent) and South Africa (25.2 percent).¹⁷

Skills acquisition under those conditions will be a challenge. Technical vocational education and training is part of the solution. Germany is a successful case in point.

A Successful Model: Germany

Germany's history with technical vocational education and training goes back to the Middle Ages when the tradition of preparing young people with work-related skills began.¹⁸ Those traditions evolved and improved over time to the current state of today's system.

Germany has separate middle or lower secondary schools based largely on a school's assessment of a student's potential.¹⁹ In those schools (commonly referred to as the dual system), students spend three or four days a week in paid, company-organized training, with the other one or two days spent performing related academic work. Germany has the oldest and best-known apprenticeship system in the world and offers programs leading to recognized qualifications and certifications in approximately 350 different occupations.²⁰

The role employers play is one of the system's strengths. Employers take the lead in defining occupational qualifications, providing paid apprenticeships or other work-based learning opportunities, and (working with educators and trade union partners) assessing student performance and awarding certificates. Employers also pay about half the expenses associated with the system, contributing roughly as much as the government.²¹ In some instances, students pay for certain costs of their vocational education, but the vast majority of the expenses are covered by employers and the government.

The many benefits of such a system are apparent. For example, in 2007, more than 80 percent of young adults in Germany found employment within six months of completing their education (compared with just 48 percent in the United States).²²

Conclusion

There are striking similarities in the challenges facing vocational education programs: low social status, the disconnect between labor market needs and skills taught, poor teacher quality, lack of career guidance or workplace learning and weak infrastructure—all commonly cited as causes of the programs' underperformance.

Those common challenges become clear opportunities in building effective technical vocational education and training programs in communities.

16. <https://www.dosomething.org/facts/11-facts-about-education-around-world>.

17. International Monetary Fund, *Tensions from the Two-Speed Recovery: Unemployment, Commodities, and Capital Flows* (International Monetary Fund, World Economic Outlook (WEO)), April 2011, 67, 78, and 81.

18. Federal Ministry of Education and Research, "Germany's Vocational Education at a Glance" (4th Edition, Bonn 2003), 29.

19. Symonds, Schwartz, and Ferguson, 16.

20. Symonds, Schwartz, and Ferguson, 15.

21. Symonds, Schwartz, and Ferguson, 16.

22. The German model, however, is not without its critics. The system is characterized by an intricate web of checks and balances at the national, state, municipal, and company levels that ensures that the short term needs of employers are emphasized. Thus, short term market needs may at times take undue precedence over long term educational and economic interests. In addition, the guidance services within the system vary widely, some students leave school with weak core academic skills and, on occasion, students are not prepared for other college level programs due to their participation in the program. Finally, students can be placed in vocational programming as early as grades nine (9) or ten (10), causing some to wonder if such placement is too early for students whose strengths have yet to fully play out. Symonds, Schwartz, and Ferguson, 20; Field, Hoeckel, Kis, and Kuczera, 186-187; Symonds, Schwartz, and Ferguson, 15.

TEC's Five-Element Education Framework

Five elements have emerged from research as being essential to success in technical vocational education and training. The combination of these elements may vary depending on the needs and sensitivities of individual markets.

TEC's five elements are: (1) providing market-relevant skills, (2) delivering quality curriculum, (3) supporting effective teachers, (4) providing career guidance and (5) combining workplace and classroom learning.²³

Teaching Market-Relevant Skills

To ensure TEC programming meets the needs of the local labor market, three factors must be considered—and balanced: student preference, employer needs and supply constraints.²⁴

Student preference means providing students the opportunity to select courses based on their individual desires and motivations. Coercing students into courses of study they do not find engaging is counterproductive. In many instances, individuals switch vocational fields later in their careers because of that dynamic.²⁵

Also, a thorough understanding of employer hiring needs in a given market is critical. One of the most stinging and long-standing criticisms of technical vocational education and training is the lack of coordination between the institutions doing the educating (both public and private) and industry. The success of vocational programs is ultimately measured by whether graduates are gainfully employed in their course of study. As a result, such programs must produce graduates in fields of study most desired by the marketplace. This highlights the absolute need for coordination among business, government and other organizations in quickly identifying marketplace needs and establishing programs to meet those needs.²⁶

Although potential employers must be active participants in such a dialogue, they also must be aware of potential challenges. Employers must be cognizant that the skills they want might be perceived by students as either unpleasant, poorly paid or the result of business intent to drive down wages with an oversupply of skills in a given sector. Employers must overcome such perceptions while also being mindful of students' interests and society's needs.

Employers can attain a balance in meeting labor market needs in a variety of ways. First, employers can provide workplace training. Vocational education programs have been criticized for not providing students sufficient workplace learning opportunities, resulting in complaints that their courses of study do not provide practical, hands-on experience. By providing those opportunities, employers create goodwill among students and, more important, provide students with another perspective to view a field of study. That new perspective could prove inspiring when students ultimately select their career paths.²⁷

Cost-sharing is another way to achieve balance. When students are paying most or all of the fees for their studies, they tend to believe the curriculum and course content should be weighted toward their choice. However, if the employer is incurring the majority of the expenses, the needs of the employer are expected to be more heavily weighted.²⁸ The issue of cost is not unique to the labor-market-needs element. It is also a consideration for the economic sustainability of programs.

Another way to address labor market needs is through career guidance (the fourth element).²⁹ Because students often are not aware of the marketplace's needs, providing them with a resource to help make informed choices might significantly alter their decision-making.

Finally, supply constraints are an important overall consideration in meeting labor market needs. Although vocational institutions are under considerable pressure to provide relevant programming, they are also wary of the costs associated with retraining teachers and purchasing new equipment. Financial pressures can be amplified when new programming requires the hiring of new teachers, who can be

23. Field, Hoeckel, Kis, and Kuczera, 41.

24. Field, Hoeckel, Kis, and Kuczera, 51.

25. Field, Hoeckel, Kis, and Kuczera, 52.

26. Field, Hoeckel, Kis, and Kuczera, 52.

27. Field, Hoeckel, Kis, and Kuczera, 56.

28. Field, Hoeckel, Kis, and Kuczera, 55.

29. Field, Hoeckel, Kis, and Kuczera, 58.

difficult to locate. As a result, business and government incentives might be necessary to spur action on the part of vocational institutions. Those incentives could be financial, such as grant making, or competition-based. The more institutions available to students, the more schools are forced to be responsive to the needs of the market (provided students can take advantage of having such choices).

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TEC and the Marketplace

TEC includes practical tools for understanding and meeting the skills needs of the local market. The program provides a community needs assessment process designed to learn about local hiring needs, a curriculum audit to ensure the school is meeting those needs and curriculum to fill any gaps.

Employers must also engage with TEC schools. Businesses can provide valuable and practical hands-on experience to students, such as internships and apprenticeships. Cost-sharing is similarly important. Employers seeking to develop a skilled local workforce must be willing to provide paid internships and part-time work to students who often face critical financial constraints.

Delivering Quality Curriculum

Effective curriculum is another component of a strong technical vocational program and involves three factors: employer-specific needs, general skills and “soft skills.”

Technical vocational education and training curriculum should teach specific skills needed by employers, making students immediately employable and productive. The greater the ease with which a student is incorporated into an employer’s goals, the greater likelihood the employer will see an immediate economic benefit from the hire.

Traditionally, employers have insisted the returns from training inure to them and have not been willing to invest in general education and skills training for students. Conversely, students want access to a set of broader, transferrable skills³¹ that affords them mobility. They desire to take a greater share of the “profits” from training.

The historical result of that dynamic, though now changing, is a failure of business to invest in communities’ general education skills because governments and individuals have not been willing or able to fill the general education skills gap.³² All stakeholders must be aware of those competing goals when creating curriculum.

Incorporated into that curriculum must be soft skills, which are the problem-solving and complex communication skills highly valued by employers.³³ Although employees with those traits perform better in the labor market,³⁴ too many students lack the soft skills needed to be successful.³⁵ The combination of classroom and workplace learning (the fifth element) may prove useful in ensuring soft-skills training.³⁶

TEC and Curriculum

TEC’s technical curriculum is aimed at developing graduates who can be successful in a variety of locally relevant occupations. It couples core, foundational knowledge and practical skills tailored to meet local market needs. Its emphasis of developing hands-on skills directly addresses the need for practical experience and employability.

TEC’s curriculum also includes soft-skills training to improve such employment outcomes as job performance, retention and employer and employee satisfaction. In addition, the TEC curriculum includes safety, computer, numeracy and literacy skills.

30. Field, Hoeckel, Kis, and Kuczera, 53.

31. Field, Hoeckel, Kis, and Kuczera, 59.

32. Field, Hoeckel, Kis, and Kuczera, 60-61

33. Field, Hoeckel, Kis, and Kuczera, 60.

34. Field, Hoeckel, Kis, and Kuczera, 61.

35. Field, Hoeckel, Kis, and Kuczera, 61.

36. Field, Hoeckel, Kis, and Kuczera, 65.

Supporting Effective Teachers

Successful programming requires quality teaching.³⁷ Effective teachers can provide practical and theoretical vocational skills and, in some instances, teach general subjects such as mathematics or second languages.³⁸ But finding such teachers can be difficult.

Vocational teachers are in short supply. Large numbers are retiring or about to retire.³⁹ That contraction has also affected industry-employed trainers. As a result, industry is offering more competitive salaries to teachers and trainers with experience, yet technical vocational education and training institutions have not been able to keep pace.⁴⁰ At the same time, the smaller pool of applicants to which those institutions have access are often not as familiar with the fast-changing requirements of modern workplaces.⁴¹

Creative solutions likely will include increasing pay for instructors, creating opportunities in the workplace for teachers currently in the classroom and training current employees who demonstrate an aptitude for technical vocational teaching.

TEC and Teachers

To ensure that teachers at vocational schools can compete with shifting requirements, TEC's educational model factors in not only technical skills, but also pedagogical skills, soft skills and practical knowledge of equipment and tools.

To support teachers, the program employs methods for evaluating existing skills and developing new ones while measuring the effectiveness of such interventions. The process aims to create a constant feedback loop that involves both students and teachers.

Through those tools and processes, TEC creates an environment where teachers are constantly evaluated, supported and developed. Ultimately, this will lead to a pool of teachers who are well-equipped to deliver the skills needed for students to succeed in the workplace.

Providing Career Guidance

Vocational career guidance has two main components: career education and individual career advice.

Historically, the expectation of technical vocational education and training was to prepare students for one occupation their entire working lives. Vocational careers, however, have evolved into a sequence of complex choices and changes over a lifetime of learning and working.⁴²

In response to those changes, students have sought advice from informal sources, such as family and friends. Unfortunately, such sources at times can lack reliability and impartiality and confine choices to the known and familiar. That might result in students choosing the wrong career paths and ultimately incurring higher personal costs, both financially and otherwise.⁴³

In light of those challenges, career guidance should be formalized to include both career education and individual career advice. Career education enables students to learn about the world of work and develop career management skills.⁴⁴ Individual career advice gives students access to one-on-one meetings that provide them with specific advice on career decisions on both a proactive and reactive basis.⁴⁵ The key though is the effectiveness of the career counselor. An effective career counselor must have:

- solid knowledge of labor markets, careers and learning opportunities, as well as the capacity to identify and use relevant sources of information, such as online sources, to provide more specific career advice.
- the capacity to work well with young people and to identify their interests, aptitudes and objectives, as well as help to identify career choice solutions that are both realistic and responsive to student needs.⁴⁶

37. Field, Hoeckel, Kis, and Kuczera, 92.

38. Field, Hoeckel, Kis, and Kuczera, 92.

39. Field, Hoeckel, Kis, and Kuczera, 92.

40. Field, Hoeckel, Kis, and Kuczera, 92.

41. Field, Hoeckel, Kis, and Kuczera, 93.

42. Field, Hoeckel, Kis, and Kuczera, 77.

43. Field, Hoeckel, Kis, and Kuczera, 78.

44. Field, Hoeckel, Kis, and Kuczera, 76.

45. Field, Hoeckel, Kis, and Kuczera, 76.

46. Field, Hoeckel, Kis, and Kuczera, 81.

- the ability to present students with an objective view of their career options.⁴⁷
- the separation of psychological counseling and career guidance services. Professionals who deal with both often are forced to choose between the two and tend to focus more on learning and psychological issues rather than career guidance.⁴⁸

Effective career guidance is not important solely as a stand-alone element of technical vocational education and training; it affects other elements, such as providing market-relevant skills.

Not only can employers present compelling information to students regarding opportunities available in different fields, they can gain greater awareness of others' interest levels in a given field. That will only help with current and future business planning.

TEC and Careers

TEC's model for career guidance aims to help students transition from high school to vocational school and ultimately prepare them to enter the job market. By building career navigation skills, students increase their self-awareness and understanding of career opportunities. Knowledge of local job markets and vocations helps students make informed decisions about their field of study.

While attending a TEC school, students are further supported through mentoring, assistance with résumé creation, interview preparation and networking with various workplace opportunities. After graduation, students have access to a strong network of alumni who will support one another through the career management process. Those connections are expected to encourage more students to pursue vocational education.

TEC's model also relies heavily on parent engagement to ensure they are equally informed to support the decision-making process. Through personal interactions and newsletters, parents will be knowledgeable and involved with their students' development. The success of the career guidance process is dependent on guidance counselor office support and parent engagement.

Combining Workplace and Classroom Learning

Allowing students to observe a workplace environment creates four significant benefits for both the employer and the student.

First, workplace learning gives students a high-quality learning environment where they can acquire practical skills on modern equipment and learn from trainers familiar with the most recent technologies and working methods.⁴⁹ That includes the opportunity to learn much-needed soft skills, such as problem-solving and conflict management.⁵⁰

Second, workplace learning fosters a two-way flow of information between potential employees and employers, making later recruitment efforts more effective and less costly.⁵¹

Third, the availability of the learning experience provides a signal that technical vocational education and training is valued by the labor market.

Finally, students in the workplace are given the opportunity to make a productive contribution to the potential employer.⁵² That in turn helps employers ensure labor market needs are being met by the technical and vocational training.

The structure of those opportunities should and do vary. They can be as basic as a job-shadow day or as involved as an apprenticeship. The key is that the element is incorporated in a thoughtful way with the overall vocational programming.

TEC and the Workplace

TEC combines classroom instruction with hands-on workplace experiences, utilizing the model's strong partnership between school and industry partners.

47. Field, Hoeckel, Kis, and Kuczera, 80.

48. Field, Hoeckel, Kis, and Kuczera, 78.

49. Field, Hoeckel, Kis, and Kuczera, 108.

50. Field, Hoeckel, Kis, and Kuczera, 109.

51. Field, Hoeckel, Kis, and Kuczera, 108.

52. Field, Hoeckel, Kis, and Kuczera, 109.

Through this process, schools and employers agree on a skillset students will be expected to attain prior to entering the workplace. During the workplace learning opportunity, school counselors and the employer will monitor student progress to ensure meaningful gains and hands-on practice. Those experiences can help students secure full-time employment.

Workplace learning benefits the student, who gains valuable practical skills and experience, and the business partner, which has experienced the skills of the student in a workplace environment.

Conclusion

Current technical vocational education and training programs exist in various states of maturity and are built (or contemplated) with diverse features. Those programs or sites are ideal for testing and learning, with the idea that they will lead to a trusted framework, or series of best practices, upon which Cummins and its partners can build and scale future education programs.

Cummins' goal is to craft an integrated approach to technical and vocational education. The education level targeted is post-secondary, non-university education—typically two- to three-year programs, which lead to certificates issued in accordance with the requirements of governments, markets or trade groups.

The ultimate success of TEC will rest not only on Cummins' and its partners' ability to meet the five-element framework but other, longer-term considerations—sustainability, transparency, networking, public relations and scalability.

To achieve sustainability, individual education programs should have a variety of funding sources, including governments (either through payments or tax incentives), business partners and, in some instances, payment from the students themselves.

Individual sites also should operate transparently, freely sharing knowledge, successes and failures so that others may learn and grow accordingly.

That knowledge sharing will be possible only if a coordinated network exists to collect and disseminate information to all of the sites and stakeholders that comprise the initiative.

Networking will be key, as education partners should invest in a coordinated public relations effort to improve the image of technical vocational education and jobs in communities.

And as sites demonstrate success, programs should be examined to determine if they can be increased in size or modeled in other areas of the country or around the globe. Effective delivery of industry-relevant technical vocational education and training is desperately needed. Too many students, and adults, around the world lack the general skills needed to succeed at work and in life.

TEC's aim is to provide those skills and, in turn, provide employers with qualified workers and workers with quality jobs. Together they will reverse the alarming trend of unemployment and resulting poverty and enable more global citizens to meet their personal, familial and community needs.

Serving and improving the
communities in which we live.



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