INTEGRATED EDUCATION AND TRAINING PROGRAM DEVELOPMENT AND IMPLEMENTATION ! STRATEGIES FOR COMMUNITY COLLEGE ADMINISTRATORS !

by !

Peggy Heinrich !

This dissertation is submitted in partial fulfillment of the
requirements for the degree of

Doctor of Education

Ferris State University !

December 2017 !

INTEGRATED EDUCATION AND TRAINING PROGRAM DEVELOPMENT AND IMPLEMENTATION STRATEGIES FOR COMMUNITY COLLEGE ADMINISTRATORS

by !

Peggy Heinrich !

Has been approved !

December 2017 !

APPROVED:

Mary Perkins, EdD
Committee Chair

Brian Durham, EdD
Committee Member

Bevan Gibson, MS
Committee Member

Dissertation Committee

ACCEPTED:

Roberta C. Teahen, PhD, Director
Community College Leadership Program

ABSTRACT

Integrated Education and Training (IET) programs are increasing in popularity and prevalence within community colleges throughout the country as a means to help underprepared adults complete career technical education programs in an accelerated fashion. According to the U.S. Department of Education (2010), IET programs combine occupational skills training with adult education services to increase the educational and career advancement of participants. Targeted students may never have completed high school. They may be non-native English speakers, or they may simply be lacking college-readiness in one or more areas. In IET programs, adults receive occupational skills training and adult education services simultaneously in a concurrent or co-enrollment fashion (Dann-Messier, 2010). These programs are now emphasized within the Workforce Innovation Opportunity Act (WIOA), with reportable outcomes required as a part of the National Reporting System.

Despite the rising popularity of IET programs, comprehensive and practical guidance on developing and implementing them is largely lacking. Various and scattered professional development and online training modules are available, but there is no single practical source available to carry program administrators from start to finish.

This project dissertation serves as a practitioner's guidebook on IET program development and best practices. An overview of IET programming, career pathways, and other student success strategies is provided, accompanied by practical guidance for program

administrators, state agencies, and professional development providers seeking to design and implement IET programs within a community college environment.

KEY WORDS: Integrated Education and Training (IET), adult education, workforce development

ACKNOWLEDGMENTS

My path to dissertation completion has been peppered with challenges, self-questioning, and numerous halts and starts. There were periods where priorities were questioned, and without certain key people, perhaps I would never have reached the finish line. In particular, I would like to thank my boss, college president, and mentor, Dr. David Sam, for relentlessly encouraging me to stay the course. Without his support and constant nudging, it is possible I never would have completed a doctoral degree. I am also eternally grateful to my former colleague, dissertation committee member, and friend, Brian Durham, for providing sage wisdom, reality checks, and humor throughout the process, both in my personal and professional life. To Bevan Gibson, for her undying commitment to adult education, her raucous sense of humor, and for remaining in this important field through both the challenges and the successes in Illinois.

To my chair, Mary Perkins, I offer thanks for her compassion, patience, and practical advice. I appreciate her heart, her honesty, and her highly analytical, fast-paced brain. Finally, to my family. To my beautiful daughters, Zoey and Neko, for never mistaking my times of absence with a lack of love. To my parents, for providing every possible form of support to me throughout the process. And to Paul, for standing beside me and reaching out, again and again. We finally made it.

TABLE OF CONTENTS &

page

LIST OF FIGURES !

page !

CHAPTER 1: INTRODUCTION !

INTRODUCTION: A NATION LOSING GROUND

The United States is falling behind other countries in terms of postsecondary completion, currently ranking 11th worldwide and quickly losing ground. While our nation's four-year institutions do a fairly good job of graduating students at the highest income levels, these students comprise only the minority of students entering college. Instead, the majority of students in our country attend community colleges, with 57% of today's college students attending two-year institutions. Of those students, 40% attend on a part-time basis. And, completion rates for part-time students are very low, with fewer than 8% completing an associate's degree within four years. These students struggle with finances, with 53% with children leaving the system without completing a college degree. Additionally, minority student populations are on the rise in the United States, yet inequities exist between racial groups. While the postsecondary attainment rate is 59% for Asian students and 44% for white students, it is only 27% for African-American students and 27% for Native American and Latino students (Lumina, 2016).

The national Survey of Adult Skills, conducted by the Programme for the International Assessment of Adult Competencies (PIAAC), found in 2012 that larger proportions of adults in the United States than in other countries had poor literacy and numeracy skills, with Black and Hispanic adults over-represented in the low-skilled population. It also found that literacy skills were not only linked to employment outcomes but to overall well-being, with low-skilled adults

being four times more likely than highly proficient adults to be in poor health, double the average of other participating countries (OECD, 2013). According to Jobs for the Future (2016), 93 million adults nationwide have basic or below basic literacy levels, 13% of adults ages 25-64 have less than a high school credential, and 29% have a high school credential but no college education. While much focus is placed on the problems and skill deficits within the United States K-12 system, the large number of unskilled and often unemployed adults in this country can no longer be overlooked.

Low educational levels are associated with poverty and unemployment. According to the U.S. Census Bureau (2014), among people aged 25 or older living in poverty, 29% lacked a high school credential, 14% completed high school but did not transition to college, 10% completed some college but did not complete a degree, and 5% completed a bachelor's degree or higher. Poverty rates decrease as educational attainment levels increase (UC Davis Center for Poverty Research, 2015). Yet, while postsecondary credentials are the key to employment security and family-sustaining wages, investments in adult education and workforce development programs by public and private entities have declined by more than 70% (Jobs for the Future, 2016).

Developmental and Adult Basic Skills Instruction

Developmental education is now described as higher education's "Bridge to Nowhere," with 1.7 million students entering the developmental education pathway, the majority of whom will never graduate (Complete College America, 2012). Of 150,000 students studied across the nation in 2015, only 30% of students referred to developmental math completed their sequence within three years, and only 16% completed a first college-level math course. For

those placing three levels below college-level, only 15% completed their sequence, with 8% completing a college-level math course (Bailey, Jaggars, & Jenkins, 2015). The greater the number of developmental courses required, the lower the likelihood of completion. The significant number of exit points available to students impedes academic achievement (Edgecombe, 2011).

Many students who enter the community college system are referred to one or more levels of developmental education; however, the majority of these students are not actually failing or dropping their developmental courses. Approximately 30% of these students never appear for their first developmental course at all, while 22% complete one course and never return for another (Bailey, Jaggars, & Jenkins, 2015; Edgecombe, 2011). Bailey, Jeong, and Cho (2010) found that more students exit the developmental sequence due to the fact they never followed through with enrolling than because they withdrew from a course or failed.

Students enrolled in basic skills programs, including non-native English speakers and students lacking a high school equivalency, are at an even greater disadvantage. These students rarely attempt to enroll in college-level courses, and fewer still ever complete a certificate or degree. A longitudinal study in Washington found that nearly eight out of every ten students in adult basic education and ESL programs demonstrated skills gains or attained a high school equivalency but did not advance beyond to college-level courses (Prince & Jenkins, 2005). Royce & Gacka (2001) described adult students' transitions from basic skills programs into enrollment in credit-bearing college courses as an "interlocking web of obstacles" (n.p). Barriers related to health, finances, employment, family, educational background, and limited student services serve as obstacles to postsecondary completion and economic independence.

IET programs are designed for adult education students, but they are also designed for developmental education students who may have graduated high school but are lacking college readiness in reading, math, or writing. Within the IET model, placement testing is typically eliminated or modified, permitting enrollment into college-level coursework for students who otherwise would place into developmental education. However, at the close of the IET program, students who continue on to complete an additional certificate or degree are likely to be faced with placement testing requirements, and it is important to develop systems to prevent these students from entering a lengthy developmental education sequence, particularly as they have successfully completed a year of college. Clearly, something within the system is broken, and the status quo is not effectively meeting the needs of students. For the good of the students and our nation, changes are required.

Employment Skills Gap

According to the Lumina Foundation (2016), one third of employers surveyed report they cannot find qualified candidates to fill their positions, an increase of 22% since 2011. For example, in Illinois, middle-skill jobs, those requiring more than a high school diploma but less than a four-year college degree (such as electricians, dental hygienists, paralegals, and police officers), are on the rise, yet there are not enough qualified employees to meet the demand. Employees who were once able to hold a low-skill job (such as an assembly line or factory worker) without a credential are finding that those jobs are getting harder to find. By 2018, only 36% of jobs will require workers with a high school diploma or less (Illinois Community College Board, 2009). To demonstrate this, in 2012 in Illinois, there was a surplus of low-skill workers for low-skill jobs, a surplus of high-skill workers for high-skill jobs, but a deficit of workers for

middle-skill jobs, which also comprised the majority of jobs in the state. “Illinois workers can no longer expect to hold a family-sustaining job with only a high school diploma or equivalent” (Illinois Community College Board, 2012, p. 7). Figure 1 illustrates this disparity.

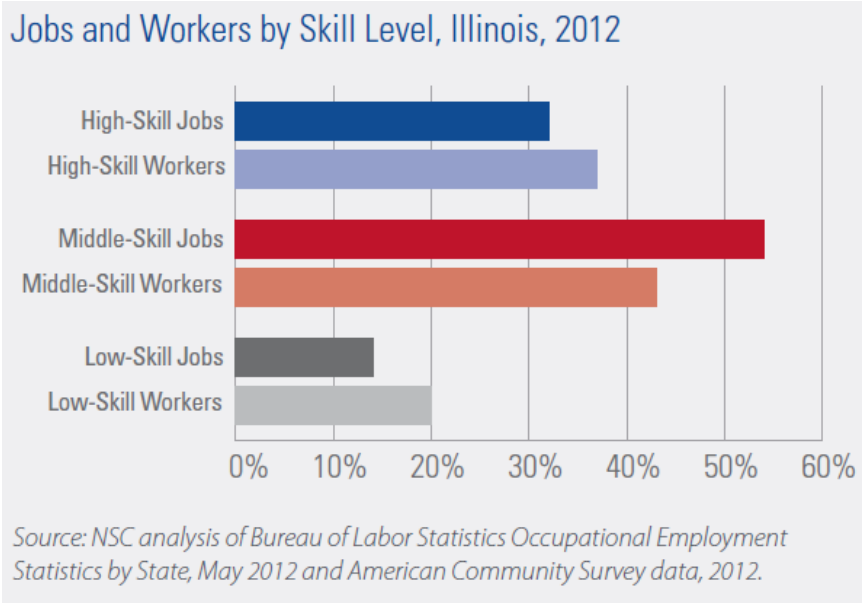

Figure 1. Jobs and Workers by Skills Level, Illinois, 2012

There is a large population of unskilled adults in this country and an increasing number of jobs that require higher education than in the past. The skills gap must be closed, increasing the number of individuals trained for middle-skill jobs and ensuring a viable economy in the United States.

THE INTEGRATED EDUCATION AND TRAINING (IET) SOLUTION

A national study tracked a representative sample of students entering community colleges in 1995-96 and found that students starting college past the age of 24 were more likely to earn a certificate but less likely to earn an associate degree and significantly less likely to attain a bachelor’s degree than students starting college soon after high school completion

(Prince & Jenkins, 2005). The study implied that short-term training programs may be a more viable solution for older adults, who are often working to support families while pursuing their education. This, paired with increasingly negative findings regarding developmental education outcomes, has led to the development of numerous acceleration strategies and innovative program models.

Career pathways models are becoming a prevalent way of accelerating learning. These models link education with training and support services in order to move students quickly into employment in specific sectors, attaining industry-recognized credentials prior to continuing on to higher levels of education and job advancement in those sectors. Integrated Education and Training (IET) models are a part of the career pathways movement. The United States Department of Education (USDOE) defines IET as "combining occupational skills training with adult education services to increase the educational and career advancement of participants" (Dann-Messier, 2010, n.p.). In 2010, the USDOE approved the use of federal Adult Education and Family Literacy Act funding to support the adult education component of IET programs.

Accelerating Opportunity (AO) was a national community college IET initiative managed by Jobs for the Future in partnership with the Washington State Board for Community and Technical Colleges, the National Council for Workforce Education, and the National College Transition Network. It was funded by numerous sources, such as the Bill & Melinda Gates Foundation, the U.S. Department of Labor, and the Joyce Foundation. Initiated in 2011, the over-arching goal of the initiative was to change the way Adult Basic Education is delivered and increase the number of lower-skilled adults entering and completing postsecondary education. These students often enroll simultaneously in high school completion programs or programs to

further the development of their English language skills while pursuing an industry-recognized credential in credit-bearing college programs. The program was modeled after Washington State's successful I-BEST program, which challenged the idea that students must advance through a sequence of basic education or remedial courses prior to starting college and working toward the completion of certificates and degrees. It employs a team-teaching approach, using a basic skills instructor and a content-area instructor, to provide enhanced support to lower-skilled adult students seeking to attain employment quickly within specific career sectors.

AO also adopted lessons learned from the Breaking Through initiative, a program launched in 2005 by Jobs for the Future and the National Council for Workforce Education. Breaking Through was a multi-year, college-based initiative designed to increase the number of low-skilled adults entering and completing community college-based technical certificate and degree programs, focusing on contextualizing basic skills instruction (Jobs for the Future and the National Council for Workforce Education, 2006). AO combined these models and began rolling out professional development and seed money within several states throughout the nation. As of 2017, IET programs that originated under AO are present within 85 colleges in seven states. They are characterized by supplemental support courses, team-teaching strategies, comprehensive student supportive services, and a cohort design. AO pathways must be in credit-bearing programs with stackable credential options, leading to solid jobs and opportunities for further education.

The success of IET programs, such as AO, has led to their inclusion within the 2014 reauthorization of the Workforce Innovation and Opportunity Act (WIOA), putting IET on the scene as a viable and successful acceleration model for underprepared adults seeking

employment leading to a family-sustaining wage (Jobs for the Future, 2016). The new WIOA included a requirement for states to provide IET services. It included IET as one of the adult education and literacy activities to be carried out by Title II adult education providers and required that those receiving funding for integrated English language and civics education services offer instruction in combination with IET activities (Bergson-Shilcock, 2016).

The WIOA regulations (§463.35-463.37) specify that IET must be comprised of three components, including adult education activities, workforce preparation activities, and workforce training. Instruction must be balanced across the three components, they must be delivered simultaneously, and occupationally relevant instructional materials must be used. Finally, IET programs must have a single set of combined learning objectives that identify adult education content, workforce preparation activities, and workforce training competencies (United States Department of Education, 2016).

THE NEED FOR PROFESSIONAL RESOURCES

IET programs arrived on the scene without a "how-to" manual. Within the AO initiative, Jobs for the Future provided examples of team-teaching in action, coordinated site visits to I-BEST programs in Washington, contracted with the National College Transition Network (NCTN) to provide professional development, offered panel discussions by practitioners, and facilitated connections and mentorship. More recently, NCTN developed a "Program Administrator Training Manual," and Jobs for the Future developed an online "Field Guide," but these resources do not adequately address practical implementation strategies required by program administrators who are new to the model. Questions related to compensation, faculty

recruitment, course sequencing and scheduling, pathway selection, overall financing, and student recruitment arise regularly, leaving many administrators adrift and halting or delaying progress. While all community colleges differ and no one solution fits all, practical examples and suggestions are needed in order to develop and implement IET programs successfully.

Purpose of the Study

The goal of this dissertation is to provide a practical guidebook for program administrators seeking to develop and implement an IET program within a community college environment. This guidebook may be useful to state agencies seeking to lead IET implementation efforts within their states, professional development agencies supporting those states, and community college administrators. This dissertation will include a literature review identifying existing student success and acceleration models and will provide background information and resource identification related to IET programming and career pathways models. Practical tips, strategies, and suggestions for developing and implementing an IET program will be provided, addressing all necessary program components.

CONCLUSION

The United States is experiencing an economic challenge, with a large number of low-skilled adults and a growing number of jobs requiring training beyond a high school credential. Career pathways models, including IET programs, are proving to move adults more quickly into jobs providing a family-sustaining wage using acceleration strategies, contextualized instruction, and the provision of industry-recognized credentials. As IET programs expand across the nation, practical program development and implementation strategies are needed

by community college administrators, state agencies, and professional development providers. Subsequent chapters will provide practical strategies and serve as a foundation for successful IET program development and implementation.

CHAPTER 2: LITERATURE REVIEW !

INTRODUCTION !

According to Bailey, Jaggars, and Jenkins (2015), the historical open-access nature of community colleges led to the establishment of programs with flexible options to meet the needs of all community members. However, flexibility has a downside. With so many available pathways and options, poorly explained opportunities, and disconnected support services, students are dropping out and wasting money on unnecessary courses. The very traits that make community colleges unique, including their flexibility and wide variety of programmatic options, may be doing a disservice to students, interfering with their ability to successfully enroll in and complete a program of study (Scott-Clayton, 2011).

Numerous student success and acceleration strategies have been developed to address these issues and encourage student success and completion. The IET model draws upon these strategies to create an intensive, unique, wrap-around program that provides both academic and social supports to underprepared adult students. This chapter will provide background on the need for guided pathway models in community colleges, along with an overview of career pathways. Various student success and acceleration strategies will be presented, all of which influence the overall IET design. Finally, several existing resources are suggested to assist administrators interested in learning more about career pathway work and/or the IET model specifically.

Cafeteria-Style Model vs. Guided Pathways

In 2008, the Commission on Access, Admissions, and Success in Higher Education (later referred to as the Commission) was established in response to dramatically declining college and high school completion rates, a lagging proportion of adults with postsecondary credentials as compared to other industrialized nations, and numerous disparities for minority and low-income students. This commission produced a 2008 report entitled, "Coming to Our Senses: Education and the American Future," in which it declared that it was imperative that 55% of the nation's young adults attain an associate degree or higher (Lee, Edwards, Menson, & Rawls, 2011). Subsequently, in 2009, President Obama formally announced a goal to increase the proportion of Americans with a college credential by 50%, kicking off the College Completion Agenda. Since then, groups such as Complete College American, the Lumina Foundation, and others have adopted the President's college completion goal.

Community colleges have historically focused on expanding low-cost access to college, with open admission processes and a mission to provide education to all community residents. They have opened the door to higher education for low-income, minority, first-generation, and adult students who otherwise may not have pursued a college education (Cohen & Brawer, 2013). However, within the climate of the College Completion Agenda, the American Association of Community Colleges (AACC) questioned the impact of the open-access mission through a 2012 report illustrating the poor completion rates of community college students,

kicking off a national focus on not only maintaining access, but improving student success (AACC, 2012).

One major criticism is that community colleges typically rely on a self-service, cafeteria-style model for class selection whereby students are left adrift in a sea of possibilities. Many students are left without a clear path, spend too much money taking excessive credits in unnecessary courses, wait too long to select a program of study, make uninformed choices, linger in developmental coursework, and far too frequently drop out along the way (Bailey, Jaggars, & Jenkins, 2015). Rosenbaum and his colleagues (2003) conducted a study comparing students in community college programs to students enrolled in private career colleges. They found that the structure of community colleges is such that students must arrive equipped with the knowledge and skills necessary to navigate the college environment. Conversely, students who enrolled in private career colleges benefited from seven strategies that were found to enhance student success (Van Noy, Trimble, Jenkins, Barnett, & Wachen, 2016). These included:

1. Eliminating bureaucratic hurdles;
2. Reducing confusing choices for program and class selection;
3. Providing college-initiated guidance that minimizes the risk of student error;
4. Investing in counselors and eliminating poor advice;
5. Quickly detecting costly mistakes; and
6. Reducing conflicts with outside demands (Deil-Amen & Rosenbaum, 2003).

Bailey, Jaggars, and Jenkins (2015) proposed a more structured approach to helping students succeed in community college using a guided pathways model, wherein clear choices are offered, accompanied by appropriate supports. Under the model, program maps are

designed to create a default curriculum and sequence for use by students and advisors. Academic plans are developed to accelerate completion and avoid the swirling effect, where students take self-selected classes without a clear direction. Students enroll in programs aligned with their employment and future educational goals, and advising systems are made more systematic in nature.

This strategy has also been promoted by Complete College America (CCA) through the Guided Pathways to Success (GPS) model. Within the model, students make "packaged deal" choices of majors, rather than compiling random courses into a schedule. They then proceed through highly structured degree maps that are guaranteed for on-time completion. Undecided students select from a set of initial broad clusters of majors (or meta-majors), and these narrow as students move into more specific areas of study over time (Complete College America, 2013). GPS is broader than Career Pathways, applies to both CTE and transfer students, and has the support of such groups as the Community College Research Center (CCRC).

Similarly, Van Noy, et al. (2016) developed a framework for establishing structure in community college career-technical programs, including the following four structural dimensions.

1. ! Program Prescription: The degree to which program requirements are clearly specified. Features may include requiring more courses than electives, cohort models, specific course sequences, integrated general education courses, and schedules intentionally designed at convenient times for students and programmed over the course of multiple semesters.

2. ! Program Alignment: The degree to which the program is linked to further aid students in achieving educational outcomes and employment. Here, labor market demand influences programming, and stackable credentials are included, leading to completion and transfer to four-year institutions.

3. ! Access to Information: The degree to which program information is readily available and accessible to students.

4. ! Active Advising and Support: The degree to which colleges convey accurate program information to students and monitor and support them as they progress. Here, targeted advising is provided, including interventions for undecided students and other strategies designed to monitor and support students who may be struggling (Van Noy, et al., 2016).

Career Pathways

Career pathways have become an integral part of IET programs. They provide guidance and support to enroll in, navigate, and complete college with the end-game of employment in mind. Hess (2006) found that while community college strategic plans and vision statements typically include goals related to preparing students for future employment, program delivery is often not offered in such a way as to achieve these identified missions (Warford, 2006).

In order to address this issue and ensure our nation has a qualified and responsive workforce, the Office of Vocational and Adult Education (OVAE) initiated efforts in 2006 to develop a common definition of career pathways, resulting in the development of 16 career clusters, subsets of more narrowly grouped occupations, and accompanying standards (Warford, 2009). Additionally, OVAE spearheaded the College and Career Transitions Initiative (CCTI), which focused on the development of model career pathways, involving secondary education, higher education, and employers. Dan Hull of the Center for Occupational Research and Development (CORD) produced "Career Pathways: Education with a Purpose" with other colleagues in 2004, providing a practical "who, why, and how" book for those seeking to develop career pathway programs within the K-12 system. These models were intended to decrease remediation and increase enrollment and persistence, academic and skill achievement, attainment of degrees, certificates, and credentials, and ultimately entry into employment or additional education (League, 2009).

Career pathways have since been broadly adopted as a means to improve completion rates and move students relatively quickly into employment. They provide opportunities for advancement through sequenced training opportunities in specific occupational clusters, allowing for advancement as students complete higher levels of education and work. Adopting this “stair step” format, many community colleges have re-packaged or re-structured their career technical education programs into smaller sequenced certificates, leading ultimately to an associate degree and an opportunity for transfer to a four-year institution.

Many definitions of career pathways exist but typically include similar components. Career pathways map educational and employment opportunities within an occupational or career cluster, offering a series of programs and support services to help students gain employment and advance over time by completing higher levels of education. They focus on providing greater clarity and structure to students, demystifying complicated processes and choices (Strawn, 2011). They challenge the prevailing cafeteria style model, wherein students are left to self-select courses and navigate complex pathways on their own. They emphasize pathways, wherein services and programs focus on clarity, efficiency, and relevancy (Bailey, Jaggars & Jenkins, 2015). They provide sequenced curricula that promote completing a program of study and attaining industry-recognized credentials. Students who complete a career pathway are meant to be prepared to meet the occupational requirements of their selected career, along with the ability to advance over time (Bragg & Krismer, 2016).

Career pathway models vary in structure and design but generally include three key components — secondary, postsecondary, and business. The secondary component focuses on ensuring academic standards are rigorous and that exit standards align with postsecondary

entry requirements. At the high school level, foundational skills and knowledge in the career cluster areas are established, and opportunities for dual credit and/or articulated credit are provided (Hull, 2013). The postsecondary component, the area of focus for this dissertation, focuses on transfer, alignment, and articulation with four-year baccalaureate programs. There is an emphasis at this level on the attainment of industry-recognized credentials, skills, and knowledge, with employment opportunities provided along the way. The business component ties in throughout high school and postsecondary education by providing opportunities such as job-shadowing, internships, apprenticeships, and other worksite learning experiences to prepare students for the workplace and to try on careers. Education is responsive and linked to employers, who provide guidance on curriculum design, current information on changing skills and demands, and resources through various forms of partnership (Institute for a Competitive Workforce and National Career Pathways Network, 2012).

Rosenbaum, Deil-Amen, and Person (2006) identified six elements of what they referred to as the "package deal" for helping students succeed in college and prepare for their future careers. These elements include:

1. ! Career-Focused Curriculum and Instruction: Workforce training is integrated, extending from adult education through to the completion of a baccalaureate degree or beyond.

2. ! Competency-Based Core Curriculum: Students demonstrate accomplishment of measurable learning standards, allowing them to advance in an accelerated fashion toward credential attainment.

3. ! Stackable Credentials: College credits stack and count toward increasingly complex and sequenced credentials, enabling students to obtain employment and continue on to more advanced positions over time.

4. ! Intensive Support Services: Student-centered advising is intensively designed to move students into and through their chosen program of study. Strategies may

include mandatory advising for new students to minimize “undecided” programs of study, intrusive advising strategies, and early intervention systems.

5. ! Accelerated Credit Attainment, including Credit for Prior Learning: Acceleration strategies are incorporated into the overall program design, including such components as credit for prior learning, condensation of developmental education sequences, restructured career technical education programs, and the IET model.

6. ! Contextualized Developmental Education: Instead of completing adult education or developmental sequences prior to entering a program of study, developmental coursework is integrated into the career-technical coursework, saving students time and money, while improving the likelihood of completion (Rosenbaum, Deil-Amen, & Person, 2006).

Employer Engagement

The guidance provided within this product dissertation is designed for IET programming involving adult learners. As previously described, employer engagement is an essential component within adult career pathways. Employers serve as partners to postsecondary institutions to ensure programs meet local industry needs and provide the content, foundational, and career readiness skills necessary for workplace success. According to David Bond (2013), there are many ways employers may engage in this process, including participating in needs assessments, setting standards and assisting with program design, offering worksite and other work-based learning experiences, providing or supporting certifications, and leveraging connections to suppliers and other businesses. With the skills gap growing, community colleges must listen and respond to the needs of local employers. This requires a proactive approach, designed to engage employers at every level and provide abundant opportunities for students to establish connections and prepare for workplace success. Chapter 8 (Career Pathways and Employer Engagement) provides additional strategies and information related to employer engagement efforts.

Student Success and Acceleration Strategies

Developmental education was designed to allow students with weak academic skills an opportunity to develop those skills prior to entering college-level coursework. However, there is no common definition of college readiness, and the skills required to enter college-level coursework differ between institutions and by program (Bailey, Jeong, Cho, 2010). According to Venezia and Kirst (2005), high school students need to understand what will be expected of them in order to success in college-level classes. They do not receive adequate information regarding college standards, such as placement tests, and do not know how to adequately prepare for them. High school teachers and counselors are also typically lacking this information (Venezia & Kirst, 2005).

In fact, the developmental education model was originally designed to prepare students for transfer into general education courses versus career technical education programs (Armstrong & Stahl, 2017). Further, it has become clear that students placed into a developmental education sequence have a far greater chance of dropping out than of graduating. Of community college students, 68% require at least one remedial course, so the majority of students entering community colleges are at the greatest risk of failure (Jaggars & Stacy, 2014). To address this issue, various student success and acceleration strategies have been developed to support students, provide clear pathways, and expedite the time to completion by reducing or eliminating the need for developmental education. These strategies also limit the potential number of exit points for students in need of some degree of remediation.

According to the Center for Community College Student Engagement (2012), there is emerging consensus that thirteen promising practices contribute to student success. These practices follow, accompanied by additional information from other sources.

Assessment and Placement

Placement testing is a common practice within community colleges, designed to ensure students are prepared for the courses in which they enroll. Ultimately, the goal of placement testing is to enroll students into classes appropriate to their knowledge and skill level. With approximately 60% of new community college students falling belong college readiness standards (National Center for Public Policy and Higher Education and the Southern Regional Education Board, 2010), this seems a laudable goal. The thinking has historically been that students who do not demonstrate college readiness benefit from one or more courses designed to bring them up to the appropriate level.

In practice, however, the placement system has proven to be ineffective. Developmental courses are tuition-based but do not count toward degree requirements, causing students to exhaust a good portion of their financial aid on remedial coursework. Additionally, numerous studies have now proven that developmental education does not improve the likelihood of course or degree completion, primarily because students placing into developmental education drop out of the pipeline prior to completing. Numerous strategies have been developed to address this issue, several of which will be described in the section on acceleration. However, accurate placement procedures are a key component of student success efforts, given they hold the power to send students down a developmental pathway, where their future success is jeopardized.

Placement cutoff scores vary by institution, and the cutoff scores are not easy to establish. One CCRC study conducted by Judith Scott-Clayton (as cited in Bailey, Jaggars, & Jenkins, 2015) concluded that students at the cutoff margin on placement tests are severely underplaced. In this study, she found that 30% of developmental students would have earned a B or better if they had been permitted to enroll directly into college-level math, bypassing developmental education entirely. In the areas of reading and writing, she found that 29% of students were severely underplaced, 5% were severely overplaced, and the misplacement rates in both areas would have been higher if a grade of C had been considered to be adequate. Misplacement has become commonplace.

New students are often unaware of the consequences of placement testing and do not arrive prepared. Additionally, cut scores are often poorly aligned with college-level course expectations. In some cases, testing companies are beginning to acknowledge the problem. In 2015, American College Testing (ACT) announced its decision to terminate the Compass placement test, highlighting research showing that the test funneled too many community college students into remedial education (Fain, 2015).

Finally, placement tests are only able to measure specific discrete skills that may not be indicative of a student's aptitude and ability to succeed in college-level coursework. Students typically take placement tests designed to assess a subset of specific academic skills, and these do nothing to measure student motivation, assess metacognitive skills, or test a student's ability to think critically (Bailey, Jaggars, & Jenkins, 2015).

To address the fact that students are frequently unprepared for placement testing, one strategy involves the provision of brush-up workshops or classes, preferably on a mandatory

basis. According to a 2011 Community College Institutional Survey (CCIS), 44% of colleges offer some type of test preparation experience in reading, writing, or math, but only 13% require it (CCCSE, 2012). At the same time, Atkinson and Geiser (2009) assert that admissions tests should minimize the need for test preparation altogether, as they should be designed to reward mastery of curriculum content over test-taking skills.

Another promising practice involves using multiple measures, such as ACT scores, high school grades, math placement scores, native language, and time since high school enrollment, to guide initial placement. In a smaller college environment, it may be possible to do a comprehensive review of these factors for each student, while for larger institutions, it may be necessary to limit the factors to be considered (Bailey, Jaggars, & Jenkins, 2015). In these cases, the research suggests using high school GPA. High school GPA has proven to be a stronger predictor of success than the ACT, possibly because these grades are indicative of affective attributes, such as perseverance, effective study habits, and time management skills (Bowen, Chingos, Lack, & Nygren, 2012).

A final strategy involves the creation of customized assessments that align with specific expectations within an individual college's programs of study. Disciplinary faculty should collaborate and develop assessments that measure skills required upon entry into specific courses (Bailey, Jaggars, & Jenkins, 2015). This final strategy is essential within the IET program model, given this model is designed for students who are underprepared but enrolling in college-level career technical courses. This component will be further described in Chapter 4 (Students) through a focused discussion on eligibility and screening, as institutions must carefully establish placement and entry standards to best prepare students for success.

Orientation

Orientation provides an initial opportunity for incoming students and the college to gain familiarity with each other and begin developing relationships that lead to personal development and overall college success. It establishes a connection to the college that illustrates institutional commitment and provides students with social supports that can positively contribute to retention (Singer, 2016). Content of new student orientation may include various elements, including academic preparation, personal adjustment, and increasing awareness of resources available and college expectations for students and parents (Hollins, 2009). It can be challenging to determine the duration and breadth of content for orientation programs; however, care must be taken to focus on "just in time" information students need to know up front in order to succeed. One key first element is academic advising; however, the method in which this is done can vary. Some colleges include short one-on-one academic advising periods during orientation, while others provide this outside of the orientation process. Generally speaking, orientations are distinct from longer student success courses. They may include tours of the campus, an explanation of registration procedures, and an overview of academic and support services.

While face-to-face orientation sessions provide a unique opportunity to engage students early with the college, the new generation of college students are global, social, visual, and technological (McCrindle, 2015). As such, online orientations have also been adopted by a number of community colleges as a means to provide a flexible, responsive, and consistent option for new students. Tinto (1986) asserted that student engagement is a key to student success and needs to occur early and often, and McClenney (2012) specified that this even

applies in an online environment. Online options may be appropriate for part-time and/or returning adult students, who may be juggling numerous responsibilities and scheduling conflicts.

Research has shown that orientation services improve student satisfaction, use of student support services, and retention of at-risk students. However, three weeks into the first year of college, 19% of new students were found to be unaware of orientation programming (Ford, Stahl, Walker, & Ford, 2008). This may be due to the fact that only 38% of colleges indicated that they require it for all first-time students (CCCSE, 2012). Given the fact that students are far less likely to complete an optional orientation session, community colleges will better ensure the success of students by making new student orientation mandatory.

Whether online or face-to-face, new student orientation remains an important part of the first-year experience for incoming community college students and their families. For IET students, new student orientation may be multi-faceted, including both the traditional college orientation and another specific to the IET model. This will be further explained in Chapter 4 (Students).

Academic Goal Setting and Planning

According to King (1993), "Academic advising is the only structured service on our campuses that guarantees students some kind of interaction with concerned representatives of the institutions" (pp. 21-22). Most students benefit from developmental advising, wherein there is a collaborative relationship between the advisor and student, and the advisor guides the student toward independence and self-sufficiency over the course of time. However, there are other students who are satisfied with a more prescriptive type of advising, wherein advising

is informational and directive (Alexitch, 2013). Students who have already decided on a program of study may consider brief advising sessions to be preferable, while undecided students may feel rushed (Bailey, Jaggars, & Jenkins, 2015). The type of advising required is dependent on individual student characteristics and institutional values and expectations.

Various studies have shown that advising is directly linked to student persistence (Metzner & Bean, 1987; Metzner, 1989; Braxton, Duster, and Pascarella, 1988), but the characteristics and quality of advising differ between institutions. Hatch and Garcia (2017) found that early advising plays a relatively important role in persistence for students who are uncertain about their plans and for whom academic goals are only loosely linked to their intention to persist. They concluded that institutions should gauge students' level of certainty about their goals in order to identify students who have unformulated goals or lack certainty in their ability to continue. Bailey and Alfonso (2005) suggest that academic advising should be designed to increase goal attainment, yet it is often faculty who maintain the ongoing connection with students, indicating that a more inclusive approach to advising may be needed institutionally. In the cafeteria-style model, numerous support services are available to help students select majors and chart progress toward their goals, but these services may be difficult to navigate and are not streamlined (Bailey, Jaggars, & Jenkins, 2015). And unfortunately, nearly half of students do not use advising and planning services at all, as colleges do not require students to use it (CCCSE, 2012).

There are, however, some best practices for academic advising. As the academic advisor is often the first and most important contact for new students, it is their role to clarify goals and map out educational plans. According to Bailey, Jaggars, and Jenkins (2015), this can best be

accomplished through a multiphase approach, wherein students complete self-assessment activities, followed by career investigation activities, which leads to a synthesis of the two. After this process has been completed, advisors are able to develop educational plans and schedules with students. A developmental approach is recommended, wherein students are taught to self-advise throughout the course of their college career. In practice, however, most community colleges lack the resources necessary to allow advisors to spend sufficient time one-on-one with students. Additionally, in many colleges, students do not receive one dedicated advisor. Rather, they may meet with one of several advisors, in the event they choose to make an appointment. Faculty also provide career and course planning advice to students, which is rarely coordinated with the academic advisor. In this case, students may receive conflicting information that can lead to greater confusion and lack of clarity. As a result, it may be preferable for colleges to focus advising resources on goal-setting activities designed for new students, with developmental activities deployed over time in partnership with faculty (Hatch & Garcia, 2017).

In the current age of technology, e-advising systems have been created to assist with student case management. In this way, they can integrate multiple support services by allowing various parties access to the same database for the same student. It is important, however, to do more than use the case management system as a point of reference for disparate services. Instead, it should be used to help all parties integrate services along the student's path through college. For example, students may complete a survey of interests when completing initial placement testing, and the advisor may then consider these results during the student's first appointment. The system may be used to provide academic alerts to advisors, when students

are performing poorly in a given course. It may be used to provide students with feedback in an actionable way (Bailey, Jaggars, & Jenkins, 2015). While e-advising systems cannot take the place of human interaction, they can be used as a tool and invaluable resource for integrating communication in the best interest of students.

Given the fact that effective advising is essential to student success, it is recommended that colleges require all students to meet with an academic advisor, improve the ratio between advisors and students to the extent possible, coordinate communication between advisors and faculty, develop case management systems, and maintain current and detailed program and course profiles on the college's website (Bailey, Jaggars, & Jenkins, 2015). Within the IET program model, goal-setting and advising are critical to student success, often with an assigned career navigator to ensure a very low student to advisor ratio. This will be further described in Chapter 7 (Career Readiness).

Registration before Classes Begin

At first glance, research seems to overwhelmingly reveal that students who register after the first day of class have lower average GPAs, fewer earned credits, and less likelihood of returning in subsequent semesters, when compared to students who enroll in advance. In 2002, Smith, Street, and Olivarez (2002) studied the impact of a late registration policy on students at a community college in Texas. They found it was detrimental to student success and should be discontinued. In 2009, a study by Safer revealed that more than half of the colleges sampled permitted registration after the first day. Additionally, students who registered late had lower average GPAs, earned fewer credits, and were less likely to return the following semester. In a large sample of college students, late registration was found to be associated with lower grades

relative to the average grade in the assigned class (Safer, 2009). In 2014, Shriner studied the impact of late registration at a community college in Florida, revealing the same results. Over the course of time, these and other studies have shown that late registration policies do not correlate with student success.

Smith, Street, and Olivarez (2002) explained that late registration policies are intended to serve the open access mission and increase enrollment. Weiss (1999) was a supporter of late registration, purporting that the momentum would be interrupted for students if it was no longer permitted. Employment changes, class cancellations, and other life factors impact the ability of students to remain enrolled in particular classes, and late registration policies permit them to adjust their schedules. Tompkins, Williams, and Mitchell (2015) completed a literature review of 32 studies related to late registration and discovered that definitions varied widely. They found that reasons for late registration include institutional barriers, unpredictable life issues, and personal decisions, with students generally feeling satisfied with their opportunity to register late. Interestingly, they also found no consistent association between late registration behaviors and student grades, course completion rates, and withdrawal/attrition rates. As such, they suggest that assumptions related to the negative impact of late registration may be over-inflated.

Despite these disparate findings, IET students would be served poorly if permitted to register late. IET student orientations, cohort bonding exercises, and efforts to assist students in transitioning into college life would be missed, potentially impacting their likelihood of success. IET students often feel overwhelmed at the onset of college classes and require academic and support services to carry them through the initial days and weeks of the program. Missing initial

content would place these underprepared students further behind. In sum, although the research on late registration policies reveals varied results, for the purposes of this guidebook and the IET model, it is recommended that late registration not be permitted.

Accelerated or Fast-Track Developmental Education

As previously described, developmental education programs historically have been comprised of a sequence of courses across several semesters. Students complete one or more semesters of coursework, based upon the level they are placed within during initial placement testing. This historical structure was based upon the presumption that lower-level students would benefit from remedial instruction in order to prepare for college, allowing colleges to continue with their open access nature. Simultaneously, colleges would be able to maintain academic rigor within college-level classes, by preventing lower level students from attending (Hodara, Jaggars, & Karp, 2012). However, it is now known that the majority of students placed within developmental classes do not complete their developmental sequence, with even fewer ever enrolling in college-level English or math courses (Bailey, Jeong, & Cho, 2010).

According to Edgecombe (2011), acceleration models allow students to complete their developmental education in an abbreviated fashion, or even while concurrently enrolled in college-level coursework. These strategies reduce the number of exit points from the developmental education sequence, increasing the likelihood of students enrolling in college-level classes prior to leaving. Additionally, they allow students to move more quickly through material that may be unnecessary, increasing student motivation (Hodara & Jaggars, 2014). Opponents of acceleration models assert that underprepared students require more time to develop basic skills, but research suggests the opposite, finding that the more quickly students

progress toward a credential, the more likely they are to graduate (Bowen, Chingos, & McPherson, 2009). Additionally, acceleration strategies benefit students economically, ensuring financial aid is not squandered on pre-college level coursework.

A number of acceleration models have been developed and implemented to address the problems associated with long-term developmental education sequences. First, there are what Edgecombe (2013) refers to as "compression" models, wherein multi-semester sequences are combined into a single semester. In a study conducted of the Fast-Start program at the Community College of Denver, students in the compressed courses were found to be more likely to complete the highest-level developmental math course and were more likely to take and pass college-level math (Edgecombe, 2013). In a study conducted by Hodara and Jaggars (2014) of the CUNY system, they found that this basic form of acceleration, shorter sequences, improved access to college-level coursework and increased overall long-term outcomes.

The Accelerated Learning Program (ALP) is a co-requisite or paired course model designed by faculty at the Community College of Baltimore County (CCBC) in 2007. It was designed to allow students placed into upper-level developmental writing to enroll in college-level English while concurrently taking a support course designed specifically to address their academic literacy needs (Jenkins, Speroni, Belfield, Jaggars, & Edgecombe, 2010). In 2016, the CCBC modified the model, changing the co-requisite class to an integrated reading and writing course and eliminated stand-alone reading and writing developmental education classes. Within the model, ALP students enroll as a cohort into a specific college-level course, such as English 101, and are accompanied by other non-ALP traditional college students. They then attend the co-requisite developmental support, taught by the same instructor, without the non-

ALP students. The CCBC found that 27% of the students enrolling into the stand-alone developmental writing course passed English 101 within three years, compared to 63% of the ALP students, who passed English 101 within two years or less. There are now more than 200 schools across the country who have adopted or modified the ALP model (The Community College of Baltimore County, n.d.).

Another curricular redesign strategy involves converting developmental education content into competency-based modules. Students may be able to complete some modules quickly while spending additional time working on modules in areas of weakness. Instructors may limit the amount of content within modules in accordance with the student's specific pathway, ensuring they learn necessary information but do not spend time learning skills they will not need to apply. Because students may lose motivation and stall out along the way in a modularized program, it is recommended that check-in points be imbedded within the program design (Edgecombe, 2011).

Finally, the IET model is one example of a contextualized mainstreaming model, wherein students are enrolled directly into college-level courses while receiving supplemental support to address basic skills gaps. This can take different forms outside of the IET model, including study groups, peer-led sessions, or the ALP model previously described (Edgecombe, 2011). The IET model is also a basic skills integration model, wherein academic deficiencies are addressed in career technical education (CTE) instructional environments. This has proven to be effective, as application within these courses is more relevant than within stand-alone developmental or adult basic skills courses (Perin, 2011). These courses are typically co-taught by disciplinary and developmental or adult basic skills faculty. The I-BEST program in Washington State served as a

foundational example of basic skills integration with CTE programs, setting the stage for the IET model nationwide. Jenkins, Zeidenberg, and Kienzl (2009) studied the I-BEST program in 24 colleges in Washington and found that participation in I-BEST increased the number of college credits earned, improved persistence rates to the subsequent academic year, increased the number of points gained on basic skills tests, and increased credential attainment.

Acceleration models address the deplorable success rates of students enrolled in traditional developmental education programs and are becoming the norm versus the exception. The IET model is one acceleration model focusing specifically on underprepared adults in shorter-term career technical education programs, eliminating the need for stand-alone developmental education.

First-Year Experience

Tinto (1975) recognized that individual student characteristics, such as prior school experiences and family background, impact a student's goal to graduate and overall level of commitment to the institution. Within his Interactionalist Model of Student Persistence, he asserted that the higher the degree of a student's academic integration, the higher their level of commitment to graduate. Additionally, the higher the degree of social integration, the higher the level of commitment to the college. The model suggests that academic and social integration are keys to successful completion. Karp (2011) affirmed this assertion by examining non-academic supports for students and found that positive outcomes were achieved in programs that involved creating social relationships, clarifying aspirations and enhancing commitment, developing college know-how, and making college feasible. However, nearly half of all first-time full-time students in community colleges do not persist to the second year (ACT,

2014), illustrating the fact that community colleges should require additional strategies and interventions for students early on. According to Levitz, Noel, and Richter (1999), attrition rates reduce by half after the completion of the first year, concluding that the best way to improve graduation rates is to reduce first to second year attrition (Mayo, 2013).

Gardner, Barefoot, and Swing (2001) recommend several strategies for establishing First-Year Experience (FYE) programs. First, they recommend one individual be placed in charge, given there is often ambiguity in this area. Maintaining FYE as a central responsibility for one individual prevents it from losing priority among many other responsibilities for others. Next, they suggest this person create a team comprised of faculty, staff, and administrators, engaging faculty across disciplines. Barefoot (2005) cautions that first year efforts will suffer a second-class citizenship in the college without the meaningful involvement of a number of faculty (Mayo, 2013). As Tinto (1982) stated, "Simply put, the more time faculty give to their students, and students to each other, the more likely are students to complete their education" (p. 697). Similarly, within the IET model, while a group effort is needed to support the program as a whole, it is important to identify one leader for the initiative. This point person is able to resolve issues between academic and support service areas and serve as a primary contact and decision-maker, ensuring the program remains vibrant and successful.

First year experiences (FYE) programs include a variety of interventions, both academic and nonacademic, designed to improve learning and retention. While there is no single model for FYE programs, they typically include student-to-student activities, faculty-to-student interaction, student involvement on campus, and academic preparation for college (Barefoot, 2000). First-year seminars or student success courses are a primary component of FYE

programs and will be specifically discussed in the following section. Other high-impact practices within FYE programs may be found inside or outside of the student success course and include: 1) writing-intensive experiences; 2) collaboration and teamwork; 3) diversity and global learning; 4) service learning; 5) learning communities; 6) common reading experiences; and 7) undergraduate research (Young & Keup, 2016).

Many of these strategies fit well within the IET model. Despite the fact that IET programs do not typically exceed one academic year, there is perhaps an even greater need to focus on retaining students through and past the first semester. Additionally, a key goal of the IET model is to transition students on to further postsecondary education, making it critical for students to persist through to the end of the IET program. Student-to-student activities are included in initial student orientation, and relationships are cultivated within the cohort throughout the duration of the program. Faculty-to-student activities are prevalent within the model, as the basic skills instructor is with the cohort in all classes. The model is designed similarly to a learning community, wherein faculty work together to achieve joint outcomes, and the support course is contextualized to all of the CTE classes. Academic preparation is emphasized through the free and contextualized support course, and collaboration and team-building exercises are imbedded within the cohort-design. While the IET model may not be classified as a FYE program, it arguably stands as a specific FYE program for returning adults in CTE pathways. These strategies may be even more critical, given the underprepared status of IET students and the fact that many are adults with a high level of anxiety regarding enrolling in or returning to college.

Student Success Course

Barefoot (1992) described the student success course as a course intentionally designed to facilitate the social and academic transition of first-year students into postsecondary education. Sometimes referred to as the "first year seminar," the course typically includes topics such as study and time-management skills and awareness of campus facilities and support services. The National Resource Center for The First-Year Experience and Students in Transition conducted a national survey in 2012-2013 of community colleges and found that the most common course topics included study skills (50.5%), campus resources (47.9%), and academic planning or advising (44.7%) (Young & Keup, 2016).

While student success courses have a much longer history, dating back as early as 1877 at Johns Hopkins University, they have become more prevalent in the past few decades. Between 2003 and 2012, the proportion of community colleges offering a student success course increased from 71% to 86% (Young & Hopp, 2014). Given the open access nature of community colleges, it is not surprising to find a heightened need to guide and acclimate students to the higher learning environment. These courses provide a unique first entry period in which to focus on personal identity, communication with others, time management, and intellectual growth (Young & Keup, 2016).

Student success courses may be offered in a number of different ways, including preterm immersion courses, first semester courses taken alongside other coursework, or via retreats designed for new students. They may be taught by different combinations of faculty, staff, and administrators, and they may come with different names, such as College 101, First Year Experience 101, or Student Success Seminar (Young & Keup, 2016). They are common

within both two-year and four-year colleges, but there are some notable differences. First, community colleges are more likely than four-year institutions to focus on basic skills and college transition. Additionally, community colleges are less likely to make it mandatory, with 46% of four-year colleges requiring it but only 22% of community colleges doing so (Bers & Younger, 2013).

Pascarella and Terenzini (2005) say that participation in a student success course has statistically significant and substantial positive effects on students' successful transition to college, persistence into the second year, and on academic performance overall while in college. The positive impact of student success courses is well documented. For example, Wahlstrom (1993) found that students who took a student success course earned higher grade point averages and more credits than their counterparts who did not take the course. Miller, Janz, and Chen (2007) found that regardless of academic ability prior, all students benefited from a student success course in terms of credits earned and persistence.

Young and Keup (2016) provide several suggestions for community colleges to consider when offering student success courses. First, it is helpful to keep class sizes small, in order to foster an environment of sharing and connection. Second, it is preferable to award credit for the student success course in order to increase motivation to complete it, communicate its importance, and to ensure financial aid is able to cover the cost. Finally, given the fact that there is a strong correlation between completion of the course and heighted student success outcomes, the course should be made mandatory for incoming students.

The IET model inherently creates a learning-community or cohort-based environment, wherein students remain together throughout the duration of the program. Within IET models,

the initial orientation or early weeks within the academic support course may be where much of the bonding between students and faculty takes place. Additionally, the career navigator remains closely linked to students, addressing concerns and barriers and smoothing the transition to college coursework. As a result, IET students may or may not be asked to complete the college's student success course. While it can only lead to heightened success for students, IET students are already receiving significantly heightened academic and support services. In order to save money and ensure students have time for their very rigorous first semester and the accompanying support course, it may be preferable to consider waiving the student success course for IET students or contextualizing it for all CTE students.

Learning Community

According to Lerner, Brentano, Dowling, and Anderson (2002), positive relationships are critical to helping students thrive, sending them on a path to "idealized personhood" (p. 15). And, when students thrive, they contribute to society, their own lives, and to the lives of others. In order to achieve this, community colleges must foster positive relationships with other students, faculty, and staff members, and this does not happen in isolation of the classroom environment (Shamah & Ohlsen, 2013).

Learning communities are intended to cultivate this type of supportive environment for community college students, wherein they can thrive both academically and socially. Within a learning community, students enroll together in a set of linked cross-disciplinary courses (often two, sometimes three or more), and faculty are meant to collaborate in providing courses that are linked or paired in some way (Visher, Weiss, Weissman, Rudd, & Wathington, 2012). For example, IET students may learn a particular hands-on skill involving measurement in a welding

course while receiving direct instruction and practice with measurement and math within the support course. Learning communities provide an opportunity for students to remain together as a cohort within two or more courses, encouraging strong social bonds and a network of support. They encourage faculty to incorporate collaborative activities, and faculty report that it improves their own pedagogy, particularly if they are paired with an experienced instructor (Bailey, Jaggars, & Jenkins, 2015).

According to Bourdon and Carducci (2002), the literature suggests that participating students demonstrate greater progress in academic subjects, have increased satisfaction with the college, and make better use of student support services. In 2005, Bailey and Alfonso found that of four areas of community colleges studied (including learning communities, developmental education, student services, and college-wide reform), learning communities yielded the most significant evidence of positive impact on persistence.

However, the impact of learning communities on student outcomes appears to be mixed. Within six random assignment studies, learning communities were found to have only modest and short-term effects on academic outcomes. While students in developmental education learning communities evidenced some small benefit, there was no evidence of any impact on persistence. Faculty reported finding it difficult to adjust their planning and pedagogy to align with the model's focus on interdisciplinary collaboration. Few of the faculty teaching learning community courses were found to collaborate on syllabi or assignments and did not regularly discuss content or shared students (Visher, et al., 2012). Additionally, learning communities often exist in isolation, involving a small set of courses, but not others. While half of community colleges offer them, most only offer a few sections, and only 13% of students

have taken one, possibly because many simply do not know about the opportunity (Bailey, Jaggars, & Jenkins, 2015).

When offered in a manner that aligns with high impact research and with high-quality faculty who collaborate, plan, and integrate content and outcomes, learning communities have the potential to achieve their intended goal of fostering a supportive and socially bonding environment. The goal and concept of learning communities is relevant within the IET model, where all courses are intended to be linked, and students attend all courses together. In this way, the experience is not isolated to a couple of courses and is more comprehensive in nature. Common course outcomes are intended to be developed between the support course and career technical education faculty, and the support course instructor is with the cohort for a portion of every class. The IET model embraces the mission of learning communities and has integrated the concept of the model into the overall program design. Chapter 9 (Planning and Logistical Considerations) will provide additional information related to the IET cohort model.

Class Attendance

Researchers have found that class attendance is the best predictor of academic performance in college, offering a more reliable prediction of college grades than do high school GPAs, SAT scores, college placement tests, and study habits (Crede, M., Roch, S.G., & Kieszczynka, U.M., 2010). Relevant to the previous section, Bonet and Walters (2016) conducted a study on learning communities and found that they positively impacted grades and course completion rates, citing higher levels of engagement and lower rates of absence as the causal mechanisms. Clump, Bauer, and Whiteleather (2003) found that there was a significant relationship between attendance and class test scores in psychology courses, and Brocato

(1989) identified a strong relationship between attendance and grades in macroeconomic courses. Simply put, students need to attend class in order to be fully successful.

Unfortunately, approximately a quarter of Survey of Entering Student Engagement (SENSE) respondents say they skipped class at least one time in the first three weeks of their first term, despite the fact that 78% of faculty maintain attendance policies (SENSE, 2011). Launius (1997) found that students cite boredom and a general lack of interest in attending class as reasons for being absent. However, mandated attendance policies appear to have a positive impact on student outcomes. Hancock (1994) and Hansen (1990) found that students generally perform better in classes where attendance is included within the grading methodology. However, within a college environment, detractors argue that students are adults and should be responsible for coming to class through their own intrinsic motivation (Chenneville & Jordan, 2008).

Within the IET model, regular attendance is viewed as a key to success. The individual attendance policies of CTE faculty may vary, but the career navigator, basic skills support instructor, and fellow students provide a wrap-around support network, checking up on students in the event of an absence and developing strategies to avoid them in the future. A pro-active approach is used in order to eliminate absences from the onset. Particularly with underprepared adult students, myriad job and life responsibilities serve as barriers to participation. However, from the time of initial recruitment and orientation, students should be asked to commit to regularly attending in order to gain admittance into the program.

Alerts and Intervention

According to Braxton, Hirschy, and McClendon (2003), effective intervention at the first sign of academic difficulty can effectively reduce student attrition. There is no "one size fits all" approach to early intervention approaches, which are impacted by the resources and size of community colleges. The idea is simply to identify students who seem to be struggling very early on and apply interventions designed to improve their performance before it is too late. Intervention triggers may include class performance, attendance, or issues involving classroom behavior or personal problems. Students may be targeted for an intervention using available software or may be referred by individual faculty. Responses to these triggers vary and may include one-on-one contact with students, connections via e-mail, text, or phone, or mass e-mails to students who fit the relevant criteria (Tampke, 2013).

Research supports the use of early intervention systems. For example, at Sinclair Community College, Price (2010) found that at-risk students in the early alert program had higher persistence than non-at-risk student in the general population. At Frederick Community College, Chappell (2010) found successful outcomes in courses rose from 52% to 66% following the implementation of an early alert system. McJunkin (2005) similarly studied early alert and found that students who received the intervention had higher term grades, GPAs, and number of term credits completed.

In order to be effective, assessment must be done early, faculty must participate in the early alert system, and support services must respond efficiently to the direct problems of individual students. Students may be on the roster without ever attending class, have excessive absences or tardiness, demonstrate academic concerns, submit little or no homework, perform

poorly on assessments, or have behavioral issues in class. Regardless of the interventions available at a given college, it is important to look beyond the symptoms to identify underlying causes. As a result, the more personalized the intervention, the more likely it should be to make a difference (Bers & Younger, 2014).

In the IET program model, Adult Education (AE) faculty, Career Technical Education (CTE) faculty, and the career navigator work very closely and individually with students from the onset of the program. As such, a formalized early alert program may be less necessary for this population, but the concept of early intervention is relevant.

Experiential Learning beyond the Classroom

The category of experiential learning beyond the classroom includes various types of activities and descriptive terms inclusive of but not limited to academic service learning, community service, volunteerism, community engagement, and service learning (Kendall, 1991). Service learning is generally accepted to be any activity that allows students to apply their life experiences to course content, with opportunities for students to reflect on their personal experiences (Bringle & Hatcher, 1995). This distinguishes it from community service, which focuses on the individual being served as the beneficiary. In service learning, both the student and individual being served benefit from the experience, and service learning is uniquely linked to course content (Furco, 2001). As such, the term service learning will be used to capture experiential learning outside of the classroom throughout this section.

Britt (2012) identified three different types of service-learning pedagogy, including: 1) skill-set practice and reflectivity, wherein students develop competence in their field and practice in the real world; 2) civic values and critical citizenship, wherein students investigate

their personal civic attitudes; and 3) social justice activism, wherein students are encouraged to view themselves as active social change agents. According to Beatty (2010), the first category is the most prevalent, though all components yield positive effect.

Research supports the fact that service learning leads to positive student outcomes. The American Association of Community Colleges (AACC) examined the impact of service learning on learning outcomes at 13 community colleges and found that service learning indicates greater performance in five of six learning outcomes, with teamwork and career skills yielding the highest scores (Bers & Younger, 2014). Sass (2014) studied service learning in college communication courses and found that the implementation of service learning significantly increased students' communication adaptability and competence (Sass & Coll, 2014). In a study of White first year students, those who completed a service-learning course exhibited a heightened sense of charitable responsibility than those who did not take the course (Mayhew & Engberg, 2011). These stand as examples of the numerous studies that have demonstrated the impact of service learning on personal development.

Watkins (2010) designed a service-learning framework comprised of six high-impact practices to advance service-learning consistency and coherence. These may be considered when developing and implementing a service learning program and include:

1. ! *Rigorous Learning* – Academic goals and community interests must be intentionally imbedded within the course, inclusive of overall design, assignments, and activities.
2. ! *Relevant and responsive service necessities* – Service partners should be asked to supply input, and faculty, students and community members should all serve as active participants. Collaborative planning, implementation, and evaluation activities are emphasized.

3. ! *Reciprocity and relationship building* – Activities should be included that promote equality, mutual respect, and shared power, highlighting the importance of interpersonal relationships.

4. ' *Reflection* – Opportunities for personal reflection should be ongoing and embedded within the curriculum. One goal of service learning is to help students discover and assess their passion, purpose, biases, and identify how these influence their practice within the community.

5. ' *Risk and reality assessment* – Service partners must work through differences, understand college policies, and be engaged authentically in project planning, monitoring, and completion.

6. ' *Recognition and celebration* – It is important to take the time to affirm the contributions of students and service partners periodically throughout the process.

Britt's (2012) first type of service learning pedagogy focusing on skill-set practice and reflectivity is relevant within the IET model, where internship and apprenticeship opportunities are encouraged. Additionally, career readiness activities focusing on personal development, mutual respect, and effective communication are imbedded within the IET curriculum.

Tutoring

Tutoring is commonly made available within community colleges and helps students more deeply understand the procedures and concepts they are exposed to in class. Tutoring may focus on specific skills and assignments from different courses or may focus on more generalized skills, such as math, reading, or writing. Tutors help students diagnose their problem areas and explain why and how they are making mistakes. They help increase conceptual understanding and skills needed to prevent future mistakes, and they help students apply these skills in a variety of contexts (Bailey, Jaggars, & Jenkins, 2015).

Tutoring may be offered one-on-one or in a small group learning format, depending upon available resources, level of assistance required, and topic or content. Further, it may be

offered within a tutoring center, or specific learning labs such as writing centers. Students may be referred by an instructor or may elect to attend tutoring on their own, and services are typically free of charge. Tutoring may be offered by trained professional tutors or by peer tutors (Koski & Levin, 1998), with computer-assisted instruction sometimes being used as a supplement.

Vick, Robles-Pina, Martirosyan, and Kite (2015) conducted a comparative study of the impact of tutoring on developmental English students and found that those who received tutoring over three consecutive semesters were more successful than those who did not receive tutoring, based upon lower withdrawal rates, grades of A or B, and higher persistence rates. In a study by Perin (2004), students who paid more than six visits to the learning center were found to have GPAs a point or more higher than those who paid fewer visits, but she acknowledged that it is difficult to determine whether it is the characteristics of students or the learning centers themselves that are responsible for these outcomes. Additionally, she found that a large portion of the assistance provided was focused directly on helping students complete course assignments (Perin, 2004). Wurtz (2015) conducted a study of developmental education students in community colleges and found that those who utilized a learning assistance center were three times as likely to be successful in their course and almost twice as likely to persist to the next term.

If tutoring leads to strong academic outcomes, it is unfortunate that 76% of students reported not using tutoring at all (CCSSSE, 2012). Strategies such as actively promoting tutoring, requiring it for developmental education students, and ensuring tutors are highly qualified and trained may assist in drawing students into the tutoring center. Tutoring is not a specific

component included within the IET model, however, the basic skills instructor goes beyond the scope of traditional tutoring by offering fully contextualized supportive instruction. In some cases, IET students who require additional assistance beyond the support course may benefit from a tutor who can spend more time working with them individually.

Supplemental Instruction

Deanna Martin developed Supplemental Instruction (SI) in 1973 as a cost-effective way to provide academic support utilizing peer-assisted study sessions (Widmar, 1994). SI, or peer-led discussion sessions, are scheduled in conjunction with one or more high risk courses (defined as courses where 30% or more of enrollees withdraw mid-semester, fail, or earn a D). The model is designed for challenging, high-risk courses versus at-risk students specifically. Peer tutors, or SI leaders, collaborate with faculty to develop study sessions that integrate course content with study skills. SI leaders are trained not to repeat course content but to help students process, discuss, reflect on, and apply what they are learning. Overall, they are meant to do more than help students with homework and should provide opportunities for students to connect more meaningfully with content (Bailey, Jaggars, & Jenkins, 2015). They do not explain content to students but use collaborative learning strategies to help reduce attrition and equip students with study strategies to help them in the future (Martin & Arendale, 1993). An SI coordinator provides supervision, identifying subjects, serving as a liaison with faculty, identifying and training SI leaders, collecting outcome data, and monitoring session quality (Goomas, 2014).

SI has proven to have a positive effect on student outcomes. In a 2003 study of students in a large, public university, Hensen and Shelley found that SI students earned a significantly

higher percentage of A and B grades, earned a lower percentage of Ds, Fs, and withdrawals, and had significantly higher final course grades that did non-SI participants (Hensen & Shelley, 2003). In a 2014 study of college students in psychology courses, Goomas (2014) found that 83% of SI students received an A, B, or C, while only 64% of those who did not participate in SI achieved similar grades. Earlier, in 1998, Maxwell found that SI may have a positive impact on peer relationships (Crisp & Taggart, 2013.

Bailey, Jaggars, & Jenkins (2015) found that 87% of community colleges offer some form of SI, but in a survey of faculty who teach supplemental instruction courses, 81% did not require students to participate in the sessions, and 82% of community college students said they had not used supplemental instruction in the current year (Center for Community College Student Engagement, 2012). The optional nature of SI may be limiting the potential for positive impact, given students are less likely to participate in something that is not required.

SI is not a component of the IET model, as a dedicated faculty member accompanies students to all classes and provides a comprehensive and contextualized support course to help students achieve positive outcomes. However, many of the concepts are applicable and can be used by the basic skills instructor, including a focus on helping students develop learning strategies. As students transition past the IET model into other high-risk, gateway courses, SI may serve as an excellent bridge resource.

Existing IET Resources

Beyond best practices for community college student success, there are also specific resources available that relate to career pathways in general and to the IET model specifically. This section provides a listing of available resources to assist community colleges interested in

IET program development and career pathway models. The following list is not intended to be all-encompassing but may provide additional guidance and direction to those seeking to develop and implement an IET program.

- *The Career Pathways Exchange* – a free information service that consolidates and distributes career pathways-related resources, events, and information from federal and state agencies and partner organizations. The Exchange streamlines information from multiple sources to facilitate a rich national dialogue on career pathways systems development and implementation. https://lincs.ed.gov/programs/movingpathways/career-pathways-exchange

- *The Center for Postsecondary and Economic Success (CLASP)* – a national, nonpartisan, anti-poverty organization advancing policy solutions that work for low-income people. They produced a helpful "Opportunities for Action" memo on IET that provides background information, definitions, and examples of IET models in different settings. www.clasp.org/resources-and-publications/publication-1/WIOA-IET-Model-Programs.pdf

- *Jobs for the Future* – a national nonprofit that builds educational and economic opportunity for underserved populations in the United States. They develop innovative programs and public policies that increase college readiness and career success and led the national Accelerating Opportunity initiative, which carried Washington State's I-BEST initiative to scale. They have developed a number of technical resources, including "A Resource Guide to Engaging Employers" and the "Accelerating Opportunity Field Guide," both of which can be located at www.jff.org.

- *The National Career Pathways Network (NCPN)* - a membership organization for educators, employers and others involved in the advancement of Career Pathways, CTE, and related education reform initiatives. It assists members in planning, implementing, evaluating, and improving secondary and postsecondary transition programs by facilitating the exchange of best practices among the country's leading practitioners. www.ncpn.info

- *The National College Transition Network (NCTN)* – provides technical assistance and professional development services to community college systems and adult education programs to design models for accelerated career pathways, comprehensive student support services, and engagement with the workforce system. They served as the professional development arm of the Accelerating Opportunity initiative and developed various online courses to support college and career navigators. They also produced a "College and Career Navigator Trainer Manual" and the "Program Administrator Trainer Manual: Building Integrated Career Pathways through Collaboration." www.collegetransition.org

- *The Southern Illinois Professional Development Center (SIPDC)* – The SIPDC is one of several professional development centers in the state of Illinois providing professional development to adult education professionals. The Center maintains a strong focus on transition and the IET model, providing on-line and face-to-face training sessions, in addition to numerous on-line resources. The Center maintains a web-site specific to Illinois' IET model (ICAPS), providing a broad collection of sample documents and information specific to administrators, career navigators, and faculty. www.siue.edu/SIPDC

CONCLUSION

The IET model is a career pathways program, providing structure, prescription, and support to underprepared adult students. Recognizing the confusion of the cafeteria model, particularly for returning adults, the IET program provides students with a comprehensive matrix of academic and personal support to ensure retention and program completion. It incorporates elements of the student success and acceleration strategies discussed in this chapter, blending and modifying them with the adult audience, CTE environment, and one-year certificate program in mind. Now that a broad framework has been established, the following chapter will provide an overview of the content, structure, and organization of the chapters comprising the remainder of this project dissertation.

CHAPTER 3: METHODOLOGY !

INTRODUCTION !

This guidebook provides practical and logistical advice to administrators interested in developing and implementing an IET program. It is specifically written with the community college audience in mind but may be useful to state agencies interested in rolling out the IET model or to professional development organizations seeking to support community college professionals. As discussed in Chapter One (Introduction), while IET programs are growing in popularity, have demonstrated effectiveness, and are incentivized through federal grants, sufficient ground-level practical guidance is still lacking for those seeking to develop and implement an IET program in the field.

FILLING THE GAP

While various helpful resources have been developed, available guides seem to be written at a broader level and do not address many of the practical issues faced by administrators. For example, the "Program Administrator Training Manual: Building Integrated Pathways through Collaboration," developed by the National College Transition Network (NCTN), was developed with a different audience in mind. Specifically, the manual is designed to prepare trainers who have been selected to provide professional development to community college practitioners interested in the IET model. As such, it is structured with specific and structured activities for training professionals, such as discussion activities on collaborative

leadership and broad stakeholder engagement, including details related to timing and room layout. It includes useful advice for community college administrators, such as suggestions on creating an elevator pitch for the initiative and facilitated discussions on comprehensive student supports. However, as it is not designed for program administrators, it does not provide the prescriptive advice that would benefit administrators at the onset.

The "Accelerating Opportunity Field Guide," developed by Jobs for the Future, is another helpful online resource providing guidance and advice to administrators in a number of areas, such as pathway development and implementation/sustainability. However, it is written at a broad level. For example, while it advises colleges to establish an implementation team and provides suggested discussion topics for the team to consider, it does not dive into each topical area to provide concrete advice. As such, this guidebook is designed to complement these existing resources, providing practical guidance from the perspective of an experienced IET administrator.

PROCESS AND BACKGROUND

The content of this guidebook represents lessons learned, best practices identified, and overall advice garnered through direct experience on the part of the writer, who developed, implemented, and scaled a successful IET program at a community college. In 2010, the writer led an effort at Elgin Community College (ECC), in Illinois, to create an IET program for ESL students interested in becoming welders. ECC was subsequently selected to participate in the national Accelerating Opportunity initiative and expanded the IET model to include pathways in Welding, Computer Numerical Control Operator, Dental Office Aide, and Heating, Ventilation,

Air Conditioning, and Welding. ECC's IET program was selected as a Bellwether Award finalist by the Community College Futures Assembly in 2017 in the "Planning, Governance, and Finance" category for its work in the area of braided funding. By strategically combining and aligning various grants and funding sources, ECC was able to sustain the IET model during challenging economic times and is scaling the initiative to include four additional pathways and a broader student population at the time of this writing.

Acknowledging that the tools previously mentioned are available to practitioners and that individual states offer targeted professional development on IET programming to varying degrees, this guidebook is intended to fill the gap by providing a ground-up perspective for those seeking advice on practical application. Given the different sizes, cultures, and structures within community colleges, this guidebook provides various options to allow administrators to identify the most appropriate implementation approaches that best fit their community college.

This guidebook was written with an assumption that the community college's administration is strongly committed to developing a robust IET program, with an intention to sustain and expand it over time. As such, top-down institutional support is presumed to be in place. Additionally, it is assumed that the college has identified sufficient resources to develop and implement an IET program, even if additional planning is necessary to sustain and scale it. In order to demonstrate effectiveness, it is assumed that the college has an institutional research department with the willingness and capacity to provide outcome data for the program. Finally, it is assumed that the college is located in an area where labor market demand is high in one or more career pathway areas, that the college offers CTE programming

in these areas, and that the college resides in an area with a sizeable population of underprepared adults seeking employment, re-training, or job advancement opportunities.

OVERVIEW OF THE GUIDEBOOK STRUCTURE

The guidebook has been structured to address IET program development in a number of areas. The following chapter (Chapter 4), provides information designed to help colleges identify appropriate career pathway programs for the IET model in response to local employer needs and presents credentialing options to be considered. Chapter 5 addresses issues related to students, such as identifying the appropriate student population, developing a recruitment plan, determining eligibility requirements, designing an IET orientation, recognizing accomplishments, and transitioning students upon program completion.

Following this discussion on pathway programs and issues related to students, Chapter 6 focuses on the paired support course, discussing such topics as curriculum development, course scheduling, syllabi and course expectations, and contextualized instruction. Chapter 7 then presents model options for team-teaching within the CTE environment, offers considerations for faculty selection, provides faculty compensation models, includes options for faculty professional development and support, and makes recommendations related to faculty evaluation. Chapter 8 provides guidance related to workforce preparation activities in such areas as résumé development, mock interviews, field trips, specialized courses, and the role of the career navigator position. Chapter 9 covers a myriad of planning and logistical considerations, such as program length and intensity, the cohort model design, course scheduling, model fidelity, bridge programs, financial support, and external partnerships.

Having then covered many of the logistical topics necessary for program planning, Chapter 10 explores broader issues of sustainability, scale, and institutional support, highlighting methods for demonstrating program effectiveness, braiding funding sources, and cultivating institutional and community support. Finally, following these content chapters, the final chapter presents overall conclusions and suggests implications for future research.

CONCLUSION

The overall structure and design of the guidebook is organized in a recommended sequence that would logically move an administrator through the elements to be considered when designing an IET program. The information is not intended to be exhaustive but touches on the critical areas requiring pre-planning and decision-making. Having reviewed the guidebook, administrators should be better prepared to create a program model that fits within their unique institution, avoiding common pitfalls and building upon identified best practices.

CHAPTER 4: CAREER PATHWAYS AND EMPLOYER ENGAGEMENT !

INTRODUCTION !

The first step in developing an IET program involves identifying CTE programs that are best-suited to the model. IET programs are typically less than one year in duration and include short-term certificate programs in areas of high labor market demand, resulting in the attainment of one or more industry-recognized credentials. This chapter provides guidance on identifying CTE programs for the IET model, suggestions for pathway structure and design, and an overview of the types of credentials to be considered.

SELECTING A CAREER PATHWAY PROGRAM

When selecting a career pathway program for the IET model, time should be invested to ensure a thorough and considered decision is made. If a career pathway program poorly suited to the model and student population is selected, it is unlikely the IET program will be successful. Following are factors to be considered during the selection process.

Labor Market Demand

When selecting an IET pathway, the goal is to identify training programs in high-demand fields, leading to careers with available local jobs that yield reasonable wage rates and provide opportunities for advancement. Labor market information (LMI) should be considered but can sometimes be challenging to locate and interpret. Public data resources, such as the Quarterly Census of Employment and Wages (QCEW) and the Bureau of Labor Statistics Occupational

Employment (OES) can provide general information but may be lacking detail or local relevancy. Various vendors, such as Economic Modeling Specialist (EMSI) and Burning Glass, have developed tools that delve deeper. EMSI uses multiple state and federal sources to offer a full picture inclusive of the self-employed, agricultural workers, and others typically omitted within payroll data. Unemployment and demographic data on educational attainment and population are included, and occupational data is available by region, customizable by geographic area. Burning Glass' Labor/Insight tool and EMSI provide the specific qualifications, skills, and certifications employers are seeking in job postings, in addition to wage rate information (Kennington, 2012). These tools can provide relevant data to assist in selecting viable IET career pathways for your local college's student population.

LMI is also available at the local level. For example, Local Workforce Development Boards (LWDBs) can serve as another resource for attaining labor market information. Training programs are analyzed and approved for inclusion on local occupational demand lists. The programs included are then approved under the Workforce Innovation and Opportunity Act (WIOA) under Title I, allowing low-income students to apply for financial assistance covering tuition, books, transportation, and other costs associated with participation. The LWDBs work with other partners to create local and regional economic development plans and are an excellent resource for purposes of program planning and referrals. IET teams should connect with their LWDB as a key partner during program development and when selecting career pathways.

Local employers are another critical partner in IET program development and should be included when identifying pathway areas. Advisory councils on community college campuses

may already have long-established and strong linkages with area employers, and these connections and scheduled meetings can be readily accessed. Other local industry councils or groups may exist outside of the college, and it can be helpful to attend to identify local demand while promoting the IET program. In some cases, employers will refer employees with basic skills deficiencies to the IET program for further training, providing an added incentive to connect early. If outreach efforts to area employers are consolidated within your college to one area or individual, it is helpful to meet with that person to develop a plan for conducting needs assessment to inform your IET planning efforts.

Additional Criteria

Once a CTE program has been selected that is responsive to the needs of local employers, additional factors should be considered. It is important to consider the pre-requisites or placement test scores required by your college for program admittance to identify any barriers for underprepared adult students. If the culture within the college will not allow for alternative methods of readiness assessment for IET students, it may be necessary to choose a program with minimal requirements for entry. However, if you have identified the most appropriate CTE program for the IET model, it is worth the time and effort necessary to secure an exception to standard entry requirements. One strategy for doing so may include describing the program as a pilot, thus alleviating concerns regarding the permanency of the exceptions to be made. Another strategy is to share examples of success from other colleges and remind those who are reluctant that the program is intentionally designed with robust, built-in academic and support services, which would aide students throughout in a manner not typically associated with most CTE programs. The program is intended to admit students who do not

normally meet the prerequisite requirements and lead them to successful completion through enhanced support.

Additionally, investigate the skills students need to have in place at the time of program entry. What skills are essential for students to have mastered prior to enrolling? Students enrolled in IET programs often enter with a gap or deficiency in one or more academic areas. While the wrap-around support of the IET model makes it possible for lower-level students to persist and succeed, the skills gap cannot be so broad that it cannot be addressed through academic and other supports. Typically, programs of this level come accompanied by placement test requirements that would render IET students ineligible, but an exception to testing requirements should only be sought for programs where IET students will be able to achieve success. To determine this, it is advisable to meet with faculty in the CTE program to discuss learning outcomes and required skills, review the textbook and exams, and ask questions regarding necessary math, reading, or writing skills. In cases where a program is determined to be too advanced, consider the possibility of creating a bridge program to equip adult learners with the skills required by the program at the onset.

Several other factors should be considered when selecting a CTE program for the IET model. First, in order to successfully recruit students for the program, there must be a population of students interested in employment in the targeted area. It may be necessary to inform or educate students about the CTE program and relevant occupations, in order to elicit interest. Presentations within adult education classes or bridge programs designed to expose adult students to career pathway programs may assist.

Next, the degree to which a CTE program is fully enrolled may impact the viability of establishing an IET program in the area. For example, a highly competitive program with a waiting list may be a poor choice for the IET model, where seats or sections are typically set aside specifically for IET students. It is helpful to identify a CTE program wherein there is both high labor market demand but declining or low enrollment. As CTE faculty have a vested interest in filling their classes and running a vibrant and full program, low enrollment may serve to attract them to the IET model, where recruitment efforts are bolstered, and enrollment is strengthened.

Finally, it is necessary to consider the characteristics of the CTE program, as we will discuss further in Chapter 7 (Team-Teaching Strategies). CTE faculty must be open and willing to collaborate with a basic skills instructor and must be patient and understanding of the targeted student population. If a faculty member is resistant to the model, the program is unlikely to succeed.

PATHWAY STRUCTURE

Community colleges vary widely in terms of how career pathway programs are structured, making it a challenge for employers to understand the value of available credentials. For example, a certificate with an identical name may include six credit hours at one college and 15 credit hours at another. The differences may be unclear to local employers, who are far more concerned with skills and competencies. While standardization of certificates between colleges may not be possible, it is advisable to break certificates down into manageable chunks, to enable students to acquire a certain set of skills and then continue on to

a subsequent certificate or degree, potentially attaining employment along the way. Such short-term certificates must be expansive enough to be of value to employers. Use advisory councils and personal relationships with local employers to obtain necessary feedback regarding the curriculum.

In some cases, community colleges require that certain courses be included as a part of a CTE certificate that may, in reality, be unimportant to employers. For example, a speech course may be required as a part of a basic dental assisting certificate, or a technical math course may be required as a part of a basic welding certificate. Consider whether or not these courses are truly essential, using employer feedback as a guide. If separate stand-alone general education skills can be woven into the CTE content classes or basic skills support course, then do so. The goal is to move students quickly and efficiently through a course sequence leading to a credential of value to local employers. By eliminating unnecessary courses, students save money and can focus their attention on CTE content courses versus potentially unrelated courses that may serve as barriers to student success, as content is not contextualized to their field. It should be noted that this work extends outside of the IET program and impacts all students enrolled in the CTE pathway. In other words, all CTE programs should be evaluated in order to remove unnecessary courses or content while ensuring students are well prepared for employment and further postsecondary education. Any changes to certificate programs will need to be submitted through regular college and state processes for approval.

Career pathway programs have multiple entry points, including students from local high schools, adult education programs, and the surrounding community. They provide sequential steps to move students through a program of study from start to finish, progressing through

any basic skills coursework, on to a series of certificates, ultimately leading to a two-year degree and beyond. These pathway programs can be effectively communicated to students and employers using visual mapping, sometimes referred to as career program maps or road maps. When used effectively, these maps present entry points, coursework, competencies, credentials, labor market information, and wage data to illustrate employment and job advancement opportunities.

Maps can be used for marketing purposes and during advising sessions to help students understand entry points, progression, and advanced opportunities over time. For example, an IET program map should illustrate entry points such as bridge programs, high school equivalency classes, or ESL classes. It should clearly show the course sequence to be taken each semester, inclusive of additional IET courses, such as the basic skills support course. The courses and semesters linked to the IET program should be clearly reflected, and potential jobs associated with the targeted certificate should be shown, along with wage information. Then, subsequent credentials and steps should be clearly presented, to ensure students understand the broader path and how they can continue building their skills and credentials over time.

Beyond these broader program maps, it is necessary to develop an individualized education plan specific to the CTE certificate or degree of the individual student. For example, a student interested in becoming a Computer Numerical Control (CNC) operator should develop an educational plan with an advisor or career navigator that clearly presents the expected certificate, a description of the program, career opportunities linked to the credential, program requirements, a clear breakdown of classes to be taken each semester, information related to more advanced certificates and degrees in the area, transfer opportunities, and samples of

more advanced sequences. For IET students, there may be required courses that fall outside of the traditional sequence, such as the mandatory support course, career readiness classes, and high school equivalency courses, where applicable. These should be clearly presented, semester by semester, within the student's individualized education plan.

CREDENTIALS

IET programs lead to the attainment of one or more industry-recognized credentials, in order to equip students with the knowledge and skills sought after by sector employers. However, the term "industry-recognized credentials" has lacked a common definition. Further, employers are inconsistent in their criteria for employment. For identical jobs, one employer may require a specific third-party credential, while for another, candidates may be employed without such a credential, so long as they hold desirable attributes, such as an ability to work well with others, follow directions, and demonstrate a strong work ethic. In order to most effectively prepare IET students for success and afford them an advantage in the employment arena, credentials should be an outcome of participation in an IET program and in alignment with employer demand (Bergson-Shilcock, 2016).

The U.S. Department of Labor (DOL) Employment and Training Administration produced a "Credential Resource Guide" that provides a comprehensive description of the types of available credentials and an explanation of how they can be acquired and leveraged to build solid careers (Oates, 2010). The DOL defines a credential as "…a verification of qualification of competence issued to an individual by a third party with the relevant authority or jurisdiction to issue such credentials…" (Oates, 2010, p. 20). While a wide range of credential types are

included, all involve third party licensure or verification. Following is a summary of the various credential types described by the DOL:

- Educational Diplomas, Certificates, and Degrees: Included here are educational credentials, such as high school diplomas or equivalencies and various postsecondary awards, certificates, and diplomas ranging from short-term certificates up through a Doctor's degree.

- Apprenticeship Certification or Certificates: Two types of credentials are offered by the Registered Apprenticeship system, a flexible training system combining job related technical instruction with structured on-the-job learning experiences. The first type includes certificates of completion of an apprenticeship program, which must be issued by the DOL or a State Apprenticeship Agency, and the second includes interim credentials, which are issued by the DOL.

- Occupational Licenses: These are typically granted by Federal, state, or local governmental agencies, are mandatory in the relevant jurisdiction, set professional standards, are required in connection with other credentials, are time-limited, and have terms that cannot be violated.

- Personnel Certifications: These include third-party non-governmental certifications that are owned by the certification body and set professional standards for qualifications. Typically, these include the passage of a specific exam or assessment and require renewal after a period of time. If standards are violated, certification is likely to be suspended or revoked.

- Other Skills Certificates: These would be issued after an individual attends a particular meeting, completes a course leading to a certificate of completion, or is able to demonstrate knowledge attainment versus competency.

To complicate matters, as described earlier, not all credential types are created equal, and not all are industry-recognized. To be industry-recognized, the DOL attests that the credential must be:

> …developed and offered by, or endorsed by, a nationally-recognized industry association or organization representing a sizeable portion of the industry sector, or a credential that is sought or accepted by companies within the industry sector for purposes of hiring or recruitment which may include credentials from vendors of certain products. (Oates, 2010, p. 26)

In some industries, there are so many third-party credentials available that it is important to connect with employers to identify those most desirable in hiring.

Credential Features

Various features of available credentials should be considered when developing an IET program, to ensure students are attaining credentials that are of the highest value to employers both in their local area and elsewhere. To that end, following are several key features identified by the DOL (Oates, 2010) that may make some credentials more valuable than others:

- Portability: Consider the extent to which credentials will be recognized and accepted in various settings, geographic areas, educational institutions, industries, and companies. If a credential is only of value to a particular local employer, it is likely to be too limiting. Or, in an industry where there are numerous third-party credentials available, consider which are most commonly sought after by employers at the broadest level.

- Ability to Stack: Is the credential a part of a sequence that builds over time, as increasing skills are acquired? While students in an IET program are in need of employment in the short-term, they should be set to continue along with their education and training in order to move up the career ladder in their chosen field.

- For example, a student in an IET program may attain a high school equivalency, followed by a one-year college certificate inclusive of an external third-party credential, followed by subsequent certificates and/or apprenticeships, leading to an associate's degree, bachelor's degree, and onward to more advanced degrees and licensures. An example of an undesirable credential would be one that is short-term and disconnected from any subsequent credentialing opportunities, leading to employment in an area with little potential for advancement.

- Accreditation: Some employers seek to hire individuals who received their credentialing from accredited programs, and students receiving federal financial aid must enroll in programs accredited by appropriate regional or national accrediting agencies.

Despite the complexity of credentialing options, it is important to develop an IET program inclusive of one or more credentials of value to a broad group of employers, and

stackable credentials should be included, enabling students to advance to higher levels over time (Perkins Collaborative Resource Network, n.d.). In the end, the goal is to be aware of the credentials required for employment in the pathway area and to ensure students complete with those credentials in place.

EMPLOYER ENGAGEMENT

As previously mentioned, local employers should be involved in the IET program planning process from the onset. Most community colleges already have existing relationships with employers in each CTE pathway area, with employers providing input into overall program design and curricula through advisory council meetings. It is important to fact-check labor market demand on a more detailed personal level when developing an IET program, collaborating with CTE personnel in the process. In the end, the goal is for IET program completers to attain employment while continuing on to attain additional credentials. As such, the career ladder within local businesses should be fully understood, mapping college certificates and credentials to employment options. Are there entry-level jobs but also opportunities for advancement within local businesses? Are local employers willing to be involved in your IET program, providing mock interviews, guaranteeing interviews to graduating students, or offering internships or apprenticeships? It can be very motivating for IET students to feel they will have a built-in opportunity for employment at the close of the program. And, it is important that the certificates and credentials attained by participating students are meaningful and recognized by local employers.

Tips and Strategies

Following are several tips and strategies for engaging with local employers when developing an IET program (Bond, 2013):

- Turf and Contacts: Rather than inviting an employer to campus, go out to visit the company directly. This strategy goes far in establishing a solid relationship, demonstrating an earnest interest in fully understanding their needs, structure, and purpose. Additionally, request to meet with a combination of individuals, inclusive of the CEO, whenever possible. Bring research and labor market data to the meeting. Be prepared to show the employer you have done your homework and are serious about working with them.

- Terminology and Need: Be willing to learn the language of the business in order to foster trust with the employer. Your goal is to ensure they know you are focused on providing qualified workers, making your college the trainer of choice. It is helpful to maintain some baseline knowledge regarding the field and available job opportunities, in order to hold an informed discussion.

- Bring an Expert: It may be wise to partner with a faculty member or program lead from your college when conducting an employer visit, for credibility and content-knowledge purposes. It is likely that when visiting an employer, needs beyond those associated with IET program development will be identified, making it helpful to have someone from the CTE side in your company. This also helps avoid the "stepping on toes" effect, wherein efforts to engage with local employers may be viewed as over-reaching by CTE faculty or administrators from your institution.

- Ask the Right Questions: When meeting with employers, develop effective guiding questions in advance to identify and document need. Potential questions may include:

    - What job opportunities do you have available in the field? How many, and how frequently do you hire for each position?

    - What qualifications and credentials do you require for each position, and what is the starting wage?

    - Do you test or assess incoming applicants? What skills are being assessed?

    - How long do employees typically remain with the business, and are there opportunities for progression?

    - What skills do you find to be lacking within your applicant pool? What are the minimum and preferred skills you are seeking in a new hire?

- Do you require or look for specific certificates or credentials, or are you more focused on demonstrated skill?

- How would you like to be involved? Are you willing to interview IET students, visit the college to speak to the cohort, or host a tour?

By asking the right questions, a program responsive to employer needs can best be developed.

- Share Employer Feedback: When assessing the need of local employers, feedback may be shared that is beyond the scope of the IET program administrator. For example, it may become evident that the employer has an interest in having particular classes offered on-site, which may lead to a contract with the college's corporate training or continuing education division. Or, an employer may offer criticism regarding one of the college's programs related to poor communication, lack of responsiveness to input, or overall course outcomes. It is important to share this input delicately and through the appropriate channels on campus. Remember that while you are only serving as the messenger, the message being delivered may be unwelcome.

- Review Course Content: While overall CTE curriculum development may be beyond the scope of the IET program administrator, it remains important for adult basic skills and CTE faculty to develop joint learning outcomes. As such, employer input and review are necessary. Ask employers to participate in reviewing actual course outcomes and competencies, and discuss the degree to which each one is needed. If multiple employers provide the same feedback, be willing to revise programs or eliminate unnecessary courses. This work may be accomplished within the college's advisory councils, but the IET team should become involved in the work of the councils, if this is the case.

- The Ask: After a strong relationship has been established with an employer, it may be the case that they are willing to provide funding, equipment, or other resources to assist students or help the college save money. Be certain to include your college's fundraising office in these discussions, as it is wise to leverage these opportunities, when they arise.

- Cultivating the Relationship: Employer relationships must be maintained and cultivated over time. Follow up regularly with employers, provide updates, respond in a timely fashion, deliver on promises, recognize and celebrate employer partnerships, and share stories and success data. Ask employers how students perform after hire. If there are weaknesses or gaps identified, seek to eliminate them for future applicants.

CONCLUSION

When selecting pathways for an IET program, it is important to identify labor market demand, ensure the program is appropriately structured, and engage employers in the program design. With a goal of leading students to gainful employment, it is necessary to develop responsive, high-quality programs, with employer needs at the forefront. With private training providers on the rise and given the mission of community colleges to meet the educational needs of underserved adult populations, it is critical that community colleges remain flexible, responsive, affordable, and of the highest quality, in order to remain the training provider of choice for both students and local employers.

CHAPTER 5: STUDENTS !

INTRODUCTION !

IET programs are designed for adult learners who are lacking college readiness skills in one or more academic areas. Unfortunately, while this population is high in number, many colleges find it challenging to recruit and enroll a sufficient number of students into their IET programs. In this chapter, the target population for IET programs will be identified, and suggestions for recruitment, eligibility, screening, and orientation will be provided, followed by a discussion of completion, recognition, and transition strategies.

TARGET POPULATION

IET programs are intended to target students who are eligible to be served under Title II Adult Education and Literacy (AEL) of the Workforce Innovation and Opportunity Act (WIOA), including individuals who have:

- attained 16 years of age;
- are not enrolled or required to be enrolled in secondary school under State law; and
- who are basic skills deficient, lack a secondary school diploma or its recognized equivalent and have not achieved an equivalent level of education, or are English language learners (ICCB, 2017).

Within this population, IET programs are generally designed to target students who are between the 6th and 12th grade levels in reading or math (High Intermediate Basic Education or above) or at or above the High Intermediate English as a Second Language level, as defined by the National Reporting System (NRS, 2015). Students who have a high school diploma but

are similarly functioning below college-readiness standards in reading or math may also be eligible for the IET program, depending on specific state guidelines and/or college policies. Students appropriate for the IET model are typically unemployed or under-employed and have an interest in earning college credit, receiving technical credentials, and obtaining employment in a career technical field.

RECRUITMENT

It is important to create a comprehensive recruitment plan, as many colleges struggle to identify and enroll students into their IET programs. Potential causes for this include a lack of awareness about the program on the part of students and inadequate program marketing efforts. Additionally, financial barriers, employment conflicts, or familial commitments may serve as barriers to participation.

Generally speaking, IET programs are intensive in nature, requiring students to enroll full-time or nearly full-time, which can be challenging for students balancing work and family commitments. According to the Beginning Postsecondary Student (BPS) Survey, students who complete 30 or more credits in their first year are more likely to graduate on time than students who complete fewer credits per year (National Center for Education Statistics, 2017). Yet, in 2005, data from the Washington State Board of Community and Technical Colleges revealed that only 30% of Adult Basic Education (ABE) students enrolled in traditional programs were able to earn any college credits within five years, and only 13% of ESL students were able to do so (Prince & Jenkins, 2005). For those who do advance into college-level coursework, part-time

enrollment and placement into developmental education sequences serve as further barriers to completion.

In order to increase the number of adult students completing certificate and degree programs, IET programs are designed to move students more quickly through the educational pipeline. To accomplish this, typical IET schedules are intensive, which may serve as a significant barrier for students who are economically challenged. Students may need to choose between employment in a lower-paying position and the IET program, or they may be unable to finance the program when taking so many credit hours simultaneously. Given these potential barriers to enrollment, it is important to emphasize financial, academic, and other support services to students during recruitment efforts.

In order for students to enroll in IET programs, they typically must become aware that the program exists and then "opt in" to the program by contacting or visiting the career navigator. However, there may be eligible students who are unaware of the IET program and enroll on their own into one or more CTE courses outside of the model. In many cases, it then becomes challenging to identify eligible students, advise them properly, and enroll them into the program, due to multiple entry points. Because many of the CTE programs included within the IET model do not require placement testing, it is also difficult to determine the student's academic proficiency. Additionally, after students enroll on their own into one or more specific CTE classes, they may be resistant to altering their schedule, attending full-time, or adding in the support class. As a result, most IET programs rely heavily on identifying students before they enroll into CTE courses independently.

In order to address the challenges associated with the “opt in” model, one option involves modifying institutional practices such that the program becomes an “opt out” model. In a welding program, for example, this may require all individuals interested in welding to enroll by first meeting with the career navigator, who provides an assessment to identify any academic gaps, provides advising on the IET program model, and registers eligible students into the program. Students who do not require academic assistance or are ultimately only able to attend on a part-time basis then enroll into one or more CTE courses outside of the IET model. This process requires collaboration with the registration department, and resistance regarding a modification of enrollment practices should be anticipated. CTE faculty and others may worry that requiring this additional step may deter students from enrolling in the CTE program. However, it can be helpful to emphasize the fact that students who participate in the IET program are far more likely to successfully complete the program and will be taking more classes concurrently, improving overall enrollment. It may even be possible for the IET enrollment process to be seamlessly blended into existing processes, such as academic advising. In this case, all advisors would need to be trained to provide assessment/screening for the IET program, as well as advise students regarding all program elements and requirements. This is another area wherein resistance may be anticipated.

Another option for identifying potential students involves obtaining a listing of all students who have registered into the CTE program on their own prior to the start of the semester, which can typically be obtained from the registration department, institutional research, or via a report run by the career navigator directly. These students can then be

contacted by the career navigator, who is able to provide an overview of the program and its benefits, with the hope of identifying eligible students prior to the start of the semester.

It is possible that students may not be sold on the benefits of the IET program initially, given it is intensive and requires that they attend a mandatory support class and/or additional workshops or career readiness classes. They may feel optimistic that they can succeed on their own and do not require any additional support. Often, these same students later see the cohesiveness of the cohort and the benefit of the academic and other supports provided for the IET students. However, unless these students step forward within the first few days and enroll into the full complement of classes within the IET program, it is advised that they be prohibited from enrolling at a later time. If late enrollment is allowed, it is likely they will not be in line with the IET course sequence, making portions of the support course content irrelevant, and they may disrupt the culture within the already established cohort.

It can be helpful to consider any incentives available to attract students to the IET program, given the heightened participation and commitment required. For example, some colleges are able to provide all classes within the CTE model tuition-free to participating students. In other cases, colleges may be able to waive tuition for one or more courses or for a specific number of credit hours, which may be offered or "held" until the second semester, to encourage students to persist and complete. Students who complete their high school equivalency while enrolled in the IET program may be granted a tuition waiver, as well.

While the finance office may not initially be supportive of any form of tuition waiver, it can be helpful to use data to demonstrate the return on investment. For example, illustrate the low number of adult education students who transition into college-level courses outside of the

model, as these students would typically never generate revenue for the college. By enrolling them into the IET program, they provide tuition (outside of anything covered by a waiver) and are included in any credit hour reimbursement or apportionment dollars provided by the state. It can be helpful to highlight the fact that this is an untapped market. Illustrate the number of students who continue on beyond the IET program, when the waiver is no longer in place, and quantify this to demonstrate the overall revenue generated.

Beyond the strategies already identified, following are several tips for recruiting IET students:

- *In-Class Recruitment* – Many of the potential IET students at your college may be enrolled in High School Equivalency (HSE) or English as a Second Language (ESL) classes. As such, this is often the best source for student recruitment. Spend time developing motivating mini-presentations to be offered within all of the classes containing students at the appropriate educational level. These may include short video testimonials and information regarding the careers and jobs available through the program. The objective is not to provide comprehensive information here regarding all program requirements but to motivate and attract students to learn more from the career navigator. Develop a schedule early in the semester to ensure faculty are supportive and build time into their classes for this purpose.

- *Informational Sessions* – Students may be less likely to attend optional informational sessions outside of class time, but these may still be useful as a component of a broader recruitment effort. In some cases, adult education faculty may elect to connect a class assignment to the informational session or may bring their entire class to the session, if offered during class time. Informational sessions may be longer than in-class presentations but with similar content and an overall goal to attract students to meet one-on-one with the career navigator for additional information.

- *Educate Faculty, Academic Advisors, and Others* – The career navigator alone cannot recruit for the IET program. Academic advisors meet individually with new students to map out individualized education plans. Adult education faculty work with eligible students in their classes every day and can provide personal encouragement to enroll. CTE faculty may meet with prospective students to discuss their program prior to the start of the semester. The greater the number of employees on campus

who understand and are familiar with the IET program, the greater the likelihood they will educate and drive students to meet with the career navigator.

- *External Presentations and Community Awareness* – Key community agencies can serve as a solid source for student referrals. As such, they need to understand the benefits of the program, the overall model, and how to refer students. Reach out to these agencies in order to attend meetings, and offer to present to their employees or clients. Local Workforce Development Boards and associated job centers are a good starting point, as they serve a similar client base and are able to provide tuition and other financial assistance through WIOA Title I funding. Some community-based agencies may have grants that can provide financial support to students, as well. Develop an outreach strategy, ensure the message delivered is clear and compelling, and share outcome data to demonstrate the effectiveness of the program. Follow up regularly to communicate any changes, update staff who may change over time, and to serve as a reminder of the program's continued existence. Make it clear and easy to refer students, offering the career navigator as the single point person.

- *Local Employers* – The importance of employer engagement has been previously emphasized, and it remains critical in the area of student recruitment. Employers may have employees in entry level jobs who they would like to have obtain one or more credentials in order to allow for job advancement. They may provide release time from employment or other financial support for the program, as well. As such, ensure recruitment is one of the topics discussed with employers during outreach efforts.

- *Newspapers and Media Coverage* – Compelling press releases regarding the program can lead to free publicity, which is one way of informing the broader community about the program. Highlight student success stories or creative partnerships to cultivate community interest. Promoting the program via ads or articles in local Spanish language newspapers or publications is another way to connect with potential students. In either case, the message conveyed is the critical component, so develop messaging that will be compelling to potential students, allowing them to see that the program is right for them. Time should be set aside to document and share success stories and program outcomes in various ways, which will be further discussed in the "Cultivating Institutional and Community Support" section in Chapter 10 (Sustainability, Scale, and Institutional Support).

- *Beat the Streets* – IET program cost is typically a concern for community colleges, and it may be unnecessary to invest significant funding into ads and marketing. While program brochures or flyers are needed, and free or low-cost advertising is wise, the target population is generally less likely to learn about the program via publications. As such, a "grass roots" recruitment approach works well for IET programming. Connect with community-based agencies, and ask them to post flyers on bulletin boards. Approach local churches to see if they will include information

regarding the program in their church program or bulletin. Ask local municipalities to post flyers and/or include free advertising in their newsletters or with water bills. Post flyers in locations potential students would be likely to visit, such as laundromats, grocery stores, restaurants, and gas stations. Make it fun, gather the IET planning team, hit the road to target a community, and then celebrate.

There is no "one size fits all" approach to student recruitment, and it is critical to the survival of an IET program. If this element is ignored during the planning process, the IET program is unlikely to succeed. Develop a comprehensive plan with the IET team at the onset, and maintain the momentum of recruitment efforts throughout the duration of the IET program.

ELIGIBILITY AND SCREENING

Students interested in the IET program are typically guided to reach out to the career navigator for an individualized appointment. This appointment is a time for the student to learn more about the program and for the career navigator to complete career and skills assessments, identify financial or life barriers, and establish next steps. Ultimately, at the close of the initial appointment or shortly thereafter, students will either be enrolled into the IET program or will be provided with an alternative plan.

Program Overview

Students who arrive for their initial appointment are unlikely to understand all of the requirements of the program and/or the overall program design. After getting to know the student, it is recommended that the program be fully explained. Topics to cover in this discussion may include:

- Course sequence and class schedules for the duration of the program

- Explanation of credentials included and how the program fits within a larger career pathway program

- Complete cost breakdown of program, including tuition, textbooks, supplies and materials, background or drug testing requirements, and any other associated costs. Free elements, such as the support course, should be highlighted, to illustrate the program's benefits and requirements.

- Explanation of the team-teaching model, cohort design, support course, career-readiness activities, and the role of the career navigator

- Methods and expectations for maintaining contact with the career navigator, including updates regarding job changes, progress updates on class performance, and any challenges encountered

- Overview of regular testing requirements. Typically, IET programs are associated with the college's adult education program, where regular post-testing is a federal requirement. Students should understand from the onset that such testing is mandatory and must be completed upon request.

- Description of any tuition waivers or incentives built into the program and requirements for receiving these benefits

- Explanation of attendance and behavioral policies. This is a critical component of the first meeting, ensuring students understand the commitment required by the program and the consequences of non-compliance. Strict attendance and behavioral policies are recommended and must be enforced, ultimately leading to potential removal from the program, if violated.

This is the career navigator's opportunity to assess the student's level of motivation and anticipated commitment to the program. It is unwise to take a risk enrolling a student who is anticipated to leave the program midway. Sometimes, a student may appear to be eligible according to skill level but may still be a poor fit for the program. For example, if it becomes clear or is known in advance that the student regularly challenges faculty or other students, has a history of poor attendance, or is unwilling to accept responsibility for their actions, caution should be exercised prior to enrolling the student. If such a student is permitted to enroll,

expectations must be made clear, both verbally and in writing, for the good of the student and others in the cohort.

Career Interest and Learning Style Assessment

The initial meeting serves as a time to ensure students understand and have an interest in the career pathway area and program of study. Within the intake interview, students should be asked to talk about their employment history and future goals, including an explanation of why they have an interest in attending college. Students may be asked if they have participated in a particular bridge program or have completed any coursework in the area previously. An assessment such as Myers-Briggs, Career Cruising Matchmaker, or the Strong Interest Inventory may be administered. Some students may already be very clear regarding career goals, and the career navigator can exercise discretion in determining how far to proceed with the career exploration discussion. The goal is to ensure a solid match between the student's interests and goals with their selected CTE program and to prevent students from investing time and money in a program from which they may be likely to withdraw.

It is also advisable to assess the learning style of students who are ultimately approved to enroll, providing helpful information for IET faculty. This assessment may be completed by the career navigator or by the support course instructor at the start of the first semester. In addition to helping faculty learn more about their students, the results benefit students by helping them understand how they learn best and what strategies they might employ to improve their success. Various learning style inventories and assessments are available for this purpose and typically determine whether a student is primarily a visual, auditory, or kinesthetic learner. Professional development activities for IET faculty on learning styles should be

considered, to promote the inclusion of varied classroom activities tailored to various learning styles.

Skills Assessment

If a determination is made that a student is a good fit for the IET program, based upon the criteria previously described, it is now necessary to determine whether the student's academic skills meet program eligibility requirements. In most cases, community colleges support their IET programs, at least in part, with federal adult education funding. As such, specific assessments are required, such as the CASAS, BEST Plus, BEST Literacy, TABE, or Wonderlic GAIN. These mandated tests should be specified by each state within their adult education policies. The results of these tests are then used to identify whether or not the student falls within the eligible NRS categories, which include High Intermediate Basic Education (6.0-8.9 grade level), Low Adult Secondary Education (9-10.9 grade level), High Adult Secondary Education (11-12 grade level), and High Intermediate or Advanced ESL. If a student tests outside of the eligible range but is anticipated to do well within the program, particular state agencies governing adult education will allow for an exception, upon request, so it is recommended that this option be explored.

Beyond the eligible score range(s) described previously, it is important to recognize that each CTE program requires differing skills and aptitudes, and the academic rigor of each program is distinct. For example, oral language skills at a certain level may be important within a dental assisting program, while basic math and computer skills may be needed within a CNC operator program. There is no simple method for identifying the specific skills required at the time of entry within each CTE program. However, if attention is not given to defining these

skills, students may be enrolled who are unlikely to succeed. This is detrimental to the student and fosters distrust with CTE faculty, who may feel that the program provides students who are too underprepared. As such, it is recommended to invest time in identifying the minimum skills students must have in math, reading, writing, and verbal competency at the time of enrollment. Even with additional support provided, it may be necessary for a student to complete a bridge program or other form of basic skills instruction prior to enrolling.

In order to determine the minimal skills required for incoming students in each CTE area, one option is to ask the basic skills instructor to conduct an assessment of the program. He/she may meet with the CTE faculty to ask questions and review texts and other course materials. This information may lead to a modified eligible score range on standardized assessments. For example, the 6-9th grade level in math may need to be eliminated in a math-intensive program. Alternatively, beyond standardized assessments, a separate screening may be developed between CTE and basic skills faculty, such as a simplified math or computer test assessing only those skills determined to be critical. This screening may be conducted by the career navigator during the initial appointment. The skills identified through this process can be used to inform the content of any bridge programs or may be woven in more explicitly within standard adult education courses.

Other Intake Factors

While students may have the motivation and academic skills to enroll in the IET program, there may be significant financial or other life barriers that will interfere with their ability to participate. The intake appointment serves as a time to identify and address these barriers or to develop an alternative plan for the student. Following are areas to explore at the

time of intake that may interfere with a student's ability to successfully complete an IET program:

- *Employment* – How many hours does the student work per week? Determine whether or not the work schedule will interfere with classes and if sufficient time remains to complete necessary assignments outside of class. If employment is a conflict, explore solutions to the problem. Is the student able to cut down on hours while enrolled in the program, or will their employer allow them to modify their work schedule to permit their participation? Students often have families to support, but over-committing to a program will lead to poor results. Some students ultimately need to enroll on a part-time basis. In other cases, students may be unemployed but ready to drop from the program, if employment is secured. Ensure the student has a long-term goal in mind and commits to staying the course.

- *U.S. Citizenship* – While it may not be necessary for a student to be a U.S. citizen in order to enroll in a CTE program, employment in the field is likely to require citizenship. Explore college policy on this issue. If students are able to enroll, it is important that the limitations related to their future employment in the area be fully explained. It is helpful to note that federal Integrated English Literacy and Civics Education (IEL/CE) funding now emphasizes the inclusion of workforce training, such as the IET model.

- *Prior Education* – Explore the student's educational background. Did they take classes in English or in a foreign language? How many years of formal education did they complete? If a student has not attended school in many years, they may face greater challenges re-entering the classroom. In other cases, an ESL student may be found to have completed a degree in their native country, in which case guidance on evaluating foreign credentials can be provided.

- *Drug Testing and Background Checks* – If either of these are requirements of the CTE program, as is common in many healthcare programs, ensure students understand this at the onset. Additionally, many IET programs work heavily with employers to match students with available jobs. As many employers may resist hiring a student with a felony background, it is important to set realistic expectations with such students.

- *Concurrent Enrollment in Adult Education Classes* – Is the student working on a High School Equivalency (HSE)? What are their intentions to complete while enrolled in the IET program, and how will the workload and schedule fit within the broader IET schedule and other life commitments?

- *Child Care* – Many adult students have family and child care commitments that may impact their ability to participate. Again, map out each day of the week to identify

the times wherein child care assistance will be needed and discuss how this will be addressed. For students with children in school, discuss how they will handle those days when they have classes, but children are off from school.

- *Transportation* – Ask students how they will get to and from school each day. Do they drive, and do they share the use of a vehicle with another family member? Will they take the bus, are they familiar with the bus schedule, and does it align with the start and end times of classes? How will they pay for transportation?

- *Personal Health* – Are there any health concerns on the part of the student or a family member that may impact the student's ability to participate?

- *Familial Support* – To what extent is the student's family in support of their participation? Ensure family members understand the time required outside of class to complete homework and the fact that other life responsibilities may need to be shifted away from the student during this period.

- *Financial Support* – After sharing all program costs, ask the student to speak directly about how they intend to pay for the program. This is an opportunity to share information on scholarships, financial aid, WIOA or other supports, and payment plans. Sometimes, a student may be able to finance the initial semester but not the subsequent semester, so it is important to develop a plan for the entire duration of the program at the onset.

- *Computer Access* – If required by the program, how will the student access a computer to complete coursework? Will they use the library, and is there a lending option? Ensure students have a plan to access technology in accordance with course requirements.

Those responsible for IET programs may feel pressured to increase enrollment and fill any seats set aside for IET students. However, only those students who are ready, prepared, and committed to the program should ultimately be enrolled. It should be expected that while a sizeable number of students may demonstrate an interest in the IET program, very few of those will ultimately enroll. However, careful student screening and intake procedures will lead to success for IET students and for the program overall.

ORIENTATION AND COMMITMENT

It is strongly recommended that IET students be required to attend an orientation session specific to the program prior to the start of classes. This may be in addition to or instead of the college's standard new student orientation. Orientation sessions may be led by the career navigator or a broader team inclusive of IET faculty. In either case, it is recommended that all available members of the IET team attend the orientation, at least briefly, to relieve anxiety for new students and establish early rapport. The content of the orientation is likely to vary by institution, but inclusion of the following elements is recommended:

- *Program Overview* – Though covered at the time of initial intake, review the design and components of the program, the role of each member of the IET team, the duration and schedule, and any other pertinent details. Introduce members of the IET team or minimally show pictures and names, if faculty or others are unavailable. Share any known attendance policies or clinical requirements for specific classes, and include information related to any licensure exams included within the program.

- *Meal or Snacks* – If possible, provide coffee, snacks, or meal items to create a welcoming and friendly atmosphere.

- *Icebreaker/Cohesion Activities* – Embed collaborative activities into the orientation, such as paired interviews, to help establish early relationships between students and engage them with the content.

- *Requirements and Expectations* – This is a critical component of the initial orientation and serves as an opportunity to convey expectations officially and require a final and written commitment. Create an agreement form that students must sign, documenting their agreement to do the following:

    - Implement solutions to participation barriers prior to the first day of class, such as child care, transportation, or hours of employment

    - Remain with the program through to the point of completion

    - Attend the support course consistently (specify limitations on allowable absences)

    - Attend required workshops, career readiness classes, and field trips

- Respond to e-mails, texts, and phone calls within 24 hours
- Take all required post-tests and certification exams
- Complete any evaluative surveys associated with the program
- Provide information regarding employment to the career navigator during and following completion of the program
- Communicate any barriers to the career navigator before they impact ! attendance or grades !
- Pass the high school equivalency exam(s) prior to completion of the IET program, if applicable
- Comply with all attendance requirements, which may vary by class
- Never arrive late for any class, workshop, or appointment
- Set aside adequate time to complete homework daily
- Access necessary resources on campus, such as academic tutoring or the ! wellness center !
- Attend college commencement

- *Student Speaker* – Invite a former IET student to share information regarding the experience, including challenges, successes, and tips for success. This can demystify the experience and motivate students to stay the course.

- *Personal Schedule and Study Tips* – Consider inviting a speaker from the library or tutoring to present on effective study techniques. Include an activity wherein students map out a personal daily schedule, perhaps with a partner, to ensure they have identified necessary departure times from home and have allocated specific hours for homework completion.

- *Tour* – Take students on a tour of the campus, including service areas such as academic tutoring, financial aid, admissions, advising, testing, as well as specific class locations, to familiarize them with their schedule. During the tour, emphasize the services available to students and hours of operation.

- *Other Policies* – Explain other applicable policies and procedures, including emergency closures, student code of conduct and behavioral procedures, and minimum Standards of Academic Progress required by college policy or necessary to qualify for state or federal financial aid.

- *Completion of Final Paperwork* – Beyond the commitment form discussed earlier, have students complete any other required paperwork, such as media release forms, adult education paperwork, or lingering financial or registration documents. It is helpful to maintain a checklist of all documentation required for each student, to ensure files contain all required items for the college and any granting agencies.
- *Distribution of Resources* – If resources such as loaner textbooks will be provided to IET students, explain appropriate usage and return policies, and distribute items on orientation day.

While not necessarily a part of the orientation activities, the orientation day serves as a final opportunity to ensure students are properly registered for all classes, have established a method of payment, and have completed necessary background checks, drug testing, or immunizations. It is recommended that the career navigator and personnel from financial aid and student accounts be available and prepared to handle student payment issues on the day of orientation. Similarly, students should be advised to bring payment for any textbooks or materials required from the bookstore. At the close of orientation, students can be accompanied to the bookstore to help locate items and ensure all students are fully equipped with necessary items on the first day of class. In sum, orientation is an opportunity to ensure students are familiar and comfortable with the program and available campus resources, meet one another and members of the IET team, fully commit in writing to all requirements, and fully prepare for the first day of class.

COMMENCEMENT AND RECOGNITION

While adult students are generally intrinsically motivated to participate in the program, it is helpful to include recognition activities within the overall program design. On a daily basis, recognition can take the form of positive feedback and encouragement from members of the

IET team. On a more formal basis, structured recognition events might include a luncheon each semester for IET students, perhaps combining students from different career pathway areas. The college president or other high-level administrators might speak to students, and a special motivational speaker or employer panel might be included. This can provide an opportunity to highlight successes of former students and congratulate current students for completing their first semester or the program overall. It can serve as a time to show them how far they have come and motivate them to remain through to the end of the end of the program and beyond. If students in the program have made special accomplishments, such as attainment of a new or higher-level position, these accomplishments can be shared. If financing for such an event is unavailable, consider a smaller scale recognition for each cohort, perhaps ordering pizza at the end of a semester to celebrate after final exams. If no funding is available, consider a potluck event.

Commencement is an opportunity for students to signal to themselves and their families that they have made a significant accomplishment and are moving from one chapter of life to another. Particularly for short-term CTE certificate programs, participation in commencement activities can sometimes be low. To address this, highlight commencement from the start, encouraging students to visualize themselves walking across the stage to accept their diploma. Require that students commit to attending commencement at the time of orientation. Emphasize the fact that their attendance motivates others in the audience to return to school and demonstrates to their children the importance of formal education. Consider a method of identifying IET students positively, in order to highlight the cohort as a whole and celebrate the cohesion of the group. This may take the form of a graduation cord or stole, a designation in

the commencement program, or a verbal announcement to be read following their name, such as “IET Scholar” or the specific name of your college’s IET program. Assemble the group for a graduation picture at the event, and ensure all students receive a copy. The celebration of these accomplishments can serve to affirm the completion of one chapter of life and motivate students to continue on to complete another.

COMPLETION AND NEXT STEPS

As students near the completion of the IET program, it is critical for the IET team to keep the momentum going. First, the career navigator should ensure students have not only met graduation requirements from the college but have successfully passed any external licensure exams. If a student fails an external exam, the navigator can assist the student in preparing for a re-take. Consider whether or not the lab is available for additional practice, in an area such as welding. Speak with the CTE or the basic skills instructor to see if they are willing and available to meet with the student to provide targeted assistance. Ensure proof of completion is documented for grant compliance purposes, including proof of licensure exams and certificate(s) received.

As students near the end of the program, faculty can begin sharing information regarding the next stackable certificate or degree in the program, highlighting requirements and employment benefits that may result from their completion. The career navigator can schedule individualized appointments with students and their assigned academic advisors to map out an educational plan, select classes, and create plans to meet again in the future. While the career navigator is typically no longer assigned to support students beyond the completion

of the IET program, they can guide students through all of the steps necessary to ensure their future success. Students should be encouraged to attend tutoring or any other form of supplemental support available. If a student ultimately decides to take a semester off or move on from college for employment purposes, the career navigator can follow up each semester to request updates and to invite students to return for further education.

A significant barrier to continued enrollment in college often relates to finances. The career navigator should work individually with students at the time of their completion to ensure they have financial plans in place for the next semester, just as they did at the time of enrollment into the IET program. Similarly, the navigator should ensure students are ultimately enrolled into all necessary classes and have paid in full. While students are now moving into independence and will have more autonomy in navigating college systems, it is suggested that the navigator continue providing these services through the transition period.

Many students completing an IET program are eager to secure employment in the field. Whether it is with a career navigator, a career services specialist, instructor, or another member of the IET team, students should leave the IET program equipped with a solid résumé, interviewing skills, and having identified specific vacancies in their field. Consider developing a job club for students who are struggling to find employment. Additional information related to career readiness activities will be provided in Chapter 8 (Career Readiness). Design the IET program such that support extends beyond the point of program completion to employment, as this is the critical outcome of CTE programs. Overall, it is important to remember that while the IET program has been completed, students must be on the road to further success, both in terms of additional postsecondary education and employment.

CONCLUSION

To run a successful IET program, attention must be given to developing a comprehensive recruitment plan. Then, strong eligibility procedures must be implemented to ensure students who are enrolled demonstrate readiness for the appropriate CTE program, meet all eligibility requirements for the program, and are able to make the commitment. Orientation and recognition activities ensure students are well-informed, prepared, and remain motivated to persist, and commencement activities serve as a final end cap celebration. Finally, the IET program should continue to support students through the transition to employment or further education. In this way, students move toward self-sufficiency and autonomy without losing momentum, paving the way for their future.

CHAPTER 6: SUPPORT COURSES !

INTRODUCTION !

The support course is an integral component of the IET model, providing an opportunity for more in-depth and individualized assistance, allowing for review and clarification of course content, preparation for exams, and the development of academic skills where gaps are identified. The support course serves as a form of contextualized basic skills instruction, tailored to the content of the CTE coursework. This chapter presents information related to contextualized instruction, curriculum development, course content, and syllabi, while addressing programmatic logistics related to the support course, such as course scheduling and frequency/duration.

CONTEXTUALIZED INSTRUCTION

Basic skills instruction, in isolation, can feel disconnected from the immediate lives and employment goals of adult students. Students arrive with a wealth of background knowledge, yet that knowledge is frequently not called upon in the classroom, which leads to increase the motivational divide. Unfortunately, although content that is taught without calling upon a student's background knowledge is poorly understood or retained, this is often how instruction is delivered (Willingham, 2009). Contextualized instruction is one way to call upon students' prior knowledge and make learning meaningful. It differs from more traditional approaches of

education, incorporating the "sustained, systematic use of a single theme relevant to students' academic and/or life goals" (Perin, Hare Bork, Peverly, Mason, & Veselewski, 2011, p. 4).

Mazzeo, Rab, and Alssid (2003) define contextualization as "a diverse family of instructional strategies designed to more seamlessly link the learning of foundational skills and academic or occupational content by focusing teaching and learning squarely on concrete applications in a specific context that is of interest to the student" (p. 3). Contextualized instruction embraces the idea that it is not the content we teach but the way we teach it that influences learning most, weaving the content of academic subjects into the context of students' daily lives (Hamilton, 2013). In the IET "best case scenario" for team-teaching, academic content is seamlessly integrated into the vocational content delivered within the CTE classroom. Students may not even realize they are learning math concepts, for example, as they are applied directly to problems they are likely to encounter on the job. Academic content, such as history, math, and social studies, is delivered fully in the context of the CTE pathway.

In practice, contextualized instruction within the CTE classroom always exists, to some extent, given the practical connection to the workplace. However, the IET model also ensures that basic skills instruction is seamlessly woven into CTE course content. The support course then serves as an additional opportunity to dive more deeply into basic skills instruction, explicitly taught within the context of the career program.

CURRICULUM DEVELOPMENT AND MATERIALS

Within the IET model, CTE faculty are likely to have established curricula and course content in place prior to the implementation of the IET program. The extent to which the

content of the CTE content classes is modified to include contextualized basic skills instruction is left to the discretion of each college or may be dictated by state policy. As will be discussed further in Chapter 7 (Team-Teaching Strategies), some colleges will elect to offer true co-teaching within the CTE content classes, while others will elect a model wherein the adult basic skills instructor is present but takes a less active role in the delivery of CTE course instruction. In either case, IET students should be required to attend a separate support course to provide additional time and support for learning concepts that are fully contextualized to the CTE classes.

The support course is unique, in that it is intended to be "just-in-time" daily, in response to the content of the CTE classes and the identified needs of students. Because basic skills instructors are present within portions of all CTE classes, they are able to identify areas of potential confusion for students and can develop lessons further developing and reviewing necessary skills. For example, within a dental assisting class, students may be presented with a large number of unfamiliar vocabulary words, some of which the dental instructor may presume students would have known previously. The basic skills instructor can then develop various lessons to review and practice vocabulary in context. In a welding classroom, it may become clear that students have a need to measure and add fractions in order to select the appropriate pipe lengths for a weld, and the basic skills instructor can then explicitly teach fractions within the support class, applying these skills in the welding context. As such, it can be challenging for the basic skills instructor to plan ahead. However, by communicating with CTE faculty regularly, basic skills instructors should have access to CTE course content and can begin planning lessons to review necessary material in advance.

Basic skills instructors typically have a background in adult basic education or ESL but will likely be lacking content knowledge in their assigned CTE program. As such, it can initially be intimidating to take on the role of the support instructor. Faculty are likely to be more comfortable supporting CTE instruction if they have been exposed to it in advance and understand the content. For that reason, time permitting, colleges may elect to allow basic skills instructors a semester to audit their assigned CTE classes, providing an opportunity to familiarize themselves with the CTE material on a personal level. However, colleges often do not have the luxury of time and cannot wait a semester to implement the IET program. In this case, basic skills instructors must learn the content and provide supportive instruction concurrently. A potentially negative result of this arrangement would be a faculty member who may, themselves, struggle with course content. A potentially positive result would be a faculty member who is acutely aware of areas wherein students may need additional help, as they, themselves, are striving to learn the same content.

In the IET model, the basic skills instructor may be present within the CTE classroom anywhere between 25%-100% of the time, depending on state policies, institutional practices, and budgetary limitations. If basic skills instructors will be teaching the support course during their first semester of exposure to the CTE content, it is recommended that they be compensated in such a way as to permit them to attend 100% of the instructional time within the CTE classes. Without mastering the content themselves, faculty will find it quite difficult to appropriately assist students in the support course, potentially resulting in their credibility being questioned by both students and the CTE faculty. For teaching pairs who remain together over the course of time, CTE content becomes more predictable, and the basic skills instructor

will be better able to predict the areas wherein students will need additional assistance. The progression and sequence of activities may then become more routine, possibly reducing the amount of overlap time required within the CTE content classes. For example, in the first semester within a welding program, the basic skills instructor might attend 100% of class time within welding lectures, labs, and other courses, such as blueprint reading or metallurgy, gaining hands on practice and ensuring they are well-versed in the content. The next time around, the instructor may be able to step away from lab practice, spending 50% of CTE class time overall primarily within the lecture-based portion of the coursework.

When implementing a new IET program, it is recommended that the basic skills instructor be asked to develop comprehensive curriculum resource documentation for use by any future support course instructors. Lesson plans, vocabulary and math practice sheets, contextualized reading and writing assignments, simplified technical text excerpts, lists of online resources, videos, and other daily activities can be compiled and organized into sections by CTE course. Both electronic and hard copies can be made available to new basic skills faculty, who can add to the collection without beginning from scratch. An electronic repository should be made available to all IET faculty, who may have an interest in sharing common activities, particularly in areas such as soft skill development and career readiness.

Depending on state and institutional policies, colleges may be required to submit the support course curriculum for formal approval either internally, externally, or both. Credit versus non-credit status of the support course may also impact the need for such approval. Additional time should be included in the program development process, to ensure all necessary approvals are secured in time for the desired start date. Finally, consideration should

be given to ensure basic skills instructors are equipped in advance with CTE textbooks and other materials and equipment necessary to support their preparation for and participation in the CTE classroom.

FREQUENCY, DURATION, AND SCHEDULING

The support course is critical and should be a mandatory component of the overall IET program. It differs from the team-teaching component, which will be discussed in Chapter 7 (Team-Teaching Strategies). It is highly recommended that a separate support course, taught by the adult basic skills instructor, be included within the program. Within this course, contextualized basic skills instruction integrated with CTE course content is provided, and the course is typically mandatory but free of charge.

The overall CTE schedule for the IET program should be developed with the support course included in the schedule from the onset. It may be the case that the CTE class schedule is established largely by CTE faculty or by a coordinator who establishes the schedule of each class separately and with faculty availability in mind. In the case of an IET program, all courses, including CTE and support courses, must be scheduled as a whole. Gaps in between classes should be appropriate and minimal, class start and end times should be established with typical work schedules in mind, and the number of days on campus should be kept to a minimum, avoiding days that are too long for effective learning. The support course should not be an after-thought in scheduling.

The support course is best held on days and times that maximize effectiveness for student learning, with various factors to be considered. First, it is insufficient to offer the class

one day per week, on a day when CTE classes are not meeting. Students are less likely to attend if not already on campus for other classes. Additionally, CTE classes are likely to meet multiple times per week. Consider which courses include the highest degree of academic challenge, and schedule the support class in such a way that it most effectively supports instruction in these classes. Consider the best time of day to offer the support class to maximize attendance. In the morning, students may be fresh and in need of a review or preparation for that day's CTE classes. However, offering the support class immediately following CTE content classes allows the instructor to clarify assignments and break down content while information is still fresh in students' minds. Whatever the decision, develop a schedule that will increase the likelihood of attendance on the part of students and will best support their learning.

The duration of the course is another factor to be considered during the program development stage. While adequate time should be provided for supplemental support, it cannot be so onerous that it becomes too burdensome for students to attend. As students have a heavy course load and other life responsibilities, time spent on campus should be appropriate. Consider the number of CTE credits to be supported in a given term, as well as the breadth of content to be supported. An IET program offering five CTE credits per semester requires less support that a program offering 12-15 credit hours per semester. For example, a 15-credit hour program may benefit from a three-credit hour support course, while a five-credit hour program may only require a one-credit hour support course. However, there are many variables to consider, making it difficult to recommend one specific length for the support course. Are there certain courses that require more academic support than others, such as those that are reliant on a certain degree of prior knowledge in math? Is there an expectation

that career readiness content be explicitly included in the support course curriculum, or are there workshops and other activities designed to address this? What form of team-teaching is taking place within the CTE classes? Are the CTE courses already largely contextualized to include literacy and math skills?

It is recommended that the class be scheduled to meet more than one day per week and that it be long enough to allow for meaningful instruction and interaction. At the close of each semester, evaluate the effectiveness of the support course, including the timing, frequency, and duration of the course. Review attendance patterns, survey students to identify scheduling challenges, and allow faculty to provide feedback, assessing the degree to which sufficient time is available for instruction. Provide opportunities for students to provide feedback on the content, structure, and usefulness of the course via formative assessment strategies. There is no "one size fits all" approach, but the factors presented here can be used to help develop a course and schedule responsive to students' needs.

SYLLABI AND COURSE EXPECTATIONS

The syllabus is typically viewed as a contract between students and their instructor, laying out expectations, requirements, and course/college policies (Singham, 2005). Within the IET environment, the syllabus helps students develop a better understanding of the nature and purpose of courses from the onset and increases their awareness of course expectations and requirements. It is recommended that syllabi be distributed and reviewed with students on the first day of class, and differences between the support course and CTE course syllabi be explained by the support instructor, pointing out variances in policies and expectations. Within

the IET program, joint learning outcomes and course expectations should be articulated clearly within CTE course syllabi, crafted collaboratively by the pair of team teachers. Additionally, a separate syllabus should be prepared for the support course, even though the course is unique and designed to be flexible and responsive to the daily content of the CTE classes.

Syllabi should be designed to include sufficient information while ensuring the length is not overwhelming. Some community colleges use a standard syllabus template requiring specific elements, while others are more flexible, allowing faculty to develop uniquely structured course syllabi. The following list identifies elements to be considered for inclusion specifically in the support course syllabus:

- Course identifiers, including the course number, section number, title, and semester offered
- Instructor information, including name and contact information, such as email address and phone number
- Class information, including location and meeting days/times
- Office location and available office hours
- Course description and credit hours
- Required course materials, including textbooks, materials, and technology
- Course learning outcomes – Outcomes may relate to basic safety, work ethic and soft skills, vocabulary, study skills/time management, effective workplace communication, contextualized reading, math, and writing, and critical thinking
- Grading standards
- Attendance and make-up policies – Remember to articulate the mandatory nature of the class, developing stringent policies for late arrivals and early departures in order to mirror expectations in the workplace.
- Behavioral expectations, including reference to any student code of conduct policies and restrictions on cell phone use in class

- Topical course outline
- Evaluation/assessment methods
- Tentative class schedule – optional for the support course, given the flexible and responsive nature of the class
- Emergency closing information
- Essential college policies (Lieberg, 2008; Richlin, 2006)

Beyond these operational elements, consideration should be given to the presentation, creation, and use of the course syllabus. Lund Dean and Fornaciari (2013) emphasize the need to employ andragogy principles in connection with course syllabi, remembering that adults need to know the "why" of learning and need to own their personal decisions regarding learning. For example, Bishop (2006) put principles of andragogy into practice by providing only course-learning objectives and allowing his adult students to select their own course readings and texts. He asserted that when students feel greater ownership over course materials, their creativity and motivation increases, leading to an increase in their confidence that the material learned was of value and increasing their understanding of personal learning styles. By applying these principles, decision-making and ownership of learning outcomes are shared between the instructor and students.

Singham (2005) suggests that syllabi be a collaborative venture between students and the instructor, removing the instructor from a position of power and allowing students to take greater ownership over their own learning. At a practical level, within the support course, this may take the form of engaging students in the creation of attendance and behavioral policies. It may include the presentation of policies using positive, versus punitive, language. For example, "There is a 50%-point reduction for late work," might be rephrased to, "Please submit late

work, even if submitted past the due date. You may earn 50% of the graded points for late work." It may include a replacement of "I" statements with "we" statements. For example, "I expect professional behavior," may be rephrased to, "We owe each other professional behavior and mutual respect" (Fornaciari and Lund Dean, 2013).

The course syllabus is an opportunity to ensure IET students clearly understand expectations and have a roadmap to use as a reference throughout the duration of the semester. Including adult students in the creation of certain syllabus components may develop intrinsic motivation and serve as an early opportunity to engage the cohort in class discussion. IET team-teaching pairs should work together to develop syllabi, mirroring the effective combination of CTE content and basic academic skills.

CONCLUSION

The support course is a necessary component of the IET model, allowing an opportunity for discrete basic skills to be taught more explicitly and in context. In order to ensure the success of the basic skills instructor, a plan for curriculum and syllabus development must be established, with adequate time, support, and materials provided. Careful consideration in the support course scheduling process is needed in order to improve the likelihood of student attendance while strategically placing the class on days and times most likely to best support student learning.

CHAPTER 7: TEAM-TEACHING STRATEGIES !

INTRODUCTION !

Team-teaching is a required element of the IET model and can have a different appearance at differing institutions. Team-teaching is associated with two of the required components of IET programs under title II of the Workforce Innovation and Opportunity Act. These include “adult education and literacy activities” and “workforce training for a specific occupation or occupational cluster” (U.S. Department of Education, 2016). This chapter will present various model options for the delivery of team-teaching, along with factors to be considered when identifying faculty to teach within the program. Options for faculty compensation and evaluation will be provided, along with guidance in the area of professional development. By carefully planning in advance in these areas, a more successful team-teaching environment will be created.

MODEL OPTIONS

Within IET models, students develop basic skills and CTE skills simultaneously, either within the same course or through paired and contextualized courses. The basic skills instructor remains with the student cohort and participates in CTE classes with the students, either in an observational, supportive, or co-teaching role. The basic skills instructor typically attends only a portion of the CTE class time with the cohort, ranging from as little as 25% of class time to

100%, minimally 50% being recommended by Jobs for the Future (Jobs for the Future, 2016). The 50% overlap model allows the basic skills instructor sufficient exposure to the technical content while avoiding the additional expense associated with a greater percentage of overlap. While it is may be unnecessary for the basic skills instructor to audit the CTE courses in advance, it is critical they are present to receive all instruction when teaching a co-requisite course, in order to provide adequate contextualized support. Over time, the percentage of time spent in the CTE courses may be reduced. For example, a basic skills instructor who has remained with the same program and partner CTE instructor over time may master the course content and need only to know the assignments and competencies being taught at the moment. In other pathway areas, it may be necessary for the basic skills instructor to be present 100% of the time in specific lecture-based courses but for very little time during the lab portion of classes. The percentage of overlap time may be dictated by state policy or may be left to the discretion of the institution.

There are several types of team-teaching strategies to consider when developing an IET program:

- *One Teaches, One Observes* – In this model, the basic skills instructor observes within the CTE classes to identify areas of confusion or potential academic weakness for students. They then take this information to develop responsive and contextualized lessons for the support course, wherein they provide explicit instruction related to the identified areas. For example, in a dental assisting class, non-native English-speaking adults may struggle with the significant use of medical terminology. The basic skills instructor would break the vocabulary down, offering direct instruction and opportunities for application, in the support class environment. In a welding class, there may be an assumption that students understand basic measurement. The AE faculty member, identifying this as a skills gap, would then practice basic measurement and simple calculations within the support class.

- *Supplementary Assistance* – In this model, the basic skills instructor takes a more active role within the CTE classes, providing small group or individualized assistance to students during class instruction. For example, in a technical math course, they may sit with a small group of students to provide additional explanation, examples, and assistance. While the separate support course is still provided, the faculty member is more engaged with students during the time spent in the CTE classroom. In some cases, this arrangement naturally grows out of the One Teaches, One Observes model, as trust and expertise in the content area develop over time.

- *Co-Teaching* – In this model, the basic skills and CTE instructors either split up instructional days or tag-team throughout the CTE class session(s). For example, the CTE instructor may teach the traditional content, while the basic skills instructor may insert contextualized reading, writing, or math instruction throughout, as the need arises. While this model is often promoted as being the most effective, it can also be challenging to find sufficient time to deliver traditional content while weaving in basic skills instruction. It is still recommended to have a separate support course, even within the co-teaching model. In practice, the support course serves several purposes. Time can be spent explicitly teaching skills that are necessary for success in the CTE classes but are not taught within those classes. Even in a pure co-teaching model, the amount of CTE content to be covered is not reduced, so time allotted to basic skills instruction may be limited. In the support course, the AE faculty member may help students prepare for exams, work on writing skills, review content that was confusing, practice challenging vocabulary, or study fractions. It can also serve as an environment for completing homework with guided support, helping students develop study habits that endure when the IET program has ended.

Given there are several IET delivery models available, it may be challenging to determine the right fit for a given college. To assist with this decision-making, several factors should be considered. First, consider the organizational culture, as different models may be a better match within different organizational cultures. For example, in some institutions, CTE faculty may have initial concern over the IET model in terms of maintaining academic rigor or collaborating with another faculty member. In this case, it may be better to begin with the One Teaches, One Observes model, where the approach is least invasive. It is also helpful to consider whether or not the entire CTE class will be comprised of IET students or whether the

IET students will occupy a portion of the seats, the remainder being filled by traditional CTE students. In the latter case, the One Teaches, One Observes model, or the Supplementary Assistance model may be most appropriate, as not all students within the CTE class will require the basic skills support. In cases where faculty are open, collaborative, and have established solid rapport, an integrated co-teaching model may be possible and effective for students from the onset.

Regardless of the model selected, integrated course and program outcomes should be developed between the basic skills and CTE instructors. While the CTE course outcomes are predetermined, faculty should jointly consider the additional basic skills required for student success and modify or add to outcomes, accordingly. This results in a stacking of outcomes, addressing any required adult education content standards and traditional CTE outcomes, versus a watering down of either. For example, is it necessary for students to understand basic fractions, or do they require expanded experience with measurement? The common learning outcomes should be mapped out initially, and the basic skills instructor should remain flexible throughout, adapting instruction daily to meet the needs of students in response to the CTE course content of the day. For the basic skills instructor, the focus should be placed on teaching content necessary to allow the students to be successful in the CTE class environment.

CONSIDERATIONS FOR FACULTY SELECTION

The IET model is based upon the assumption that CTE faculty are knowledgeable and highly skilled in their respective content areas, while basic skills faculty are particularly skilled in providing basic skills instruction to underprepared students. Within the CTE classroom,

underprepared adults may become lost in the face of lengthy readings in dense technical textbooks, exams based upon rote memorization, or lecture-based instruction. Active learning techniques are found within the lab portion of courses but sometimes not within the classroom-based portion. The basic skills instructor is skilled in breaking down information into manageable chunks, incorporating active learning strategies, and contextualizing basic skills instruction to the CTE content. They may be lacking knowledge initially in the content area but are skilled at identifying areas of struggle and ensuring students digest content prior to proceeding to the next step. The combination of basic skills and CTE faculty results in a rich instructional environment for IET students.

Over time, effective CTE and basic skills faculty pairs develop trust, increase their knowledge base, and acquire new skills from their faculty partner. For example, CTE faculty may begin to teach math more explicitly within the content classes, while basic skills faculty may become increasingly adept at a technical skill. This cross-pollenating effect is beneficial to students, rendering it important to create faculty pairs who will stand the test of time. The relationship between the CTE and basic skills instructor is much like a marriage, wherein a positive match is essential in order for success to be achieved. Following are factors to be considered related to faculty selection and pairings:

- *Target the Willing* – When selecting a career pathway for an IET program, it is important to consider the CTE faculty who primarily teach within the program. Are they innovative and willing to try new things? Are they collaborative and team-oriented? Will they be threatened by having another faculty member in their classroom? Are they committed to helping underprepared students? Are they willing to consider modifying the class schedule, if needed? The IET model cannot be forced upon CTE faculty. Recruit the most innovative and interested faculty, and allow their characteristics to be a consideration when choosing an initial pathway for an IET program.

- *Identify Faculty Champions* – It is important for the initial IET program to be successful for many reasons, one of which is to attract faculty from other pathway areas to the IET model. As such, select faculty who will champion the cause, speak and present at meetings and conferences, and be willing to help mentor other IET faculty in the future.

- *Recruit High Quality Basic Skills Faculty* – Hire only the best basic skills instructors, recognizing that not all are a good match for the IET model. Basic skills faculty may be experienced in math, reading, writing, and/or English language instruction, but teaching these in a contextualized fashion in an unfamiliar CTE area can be a daunting experience. Recruit and interview basic skills faculty to ensure they understand the model and are qualified and experienced. For example, it may be wiser to hire faculty experienced in teaching math versus ESL, if the CTE program has a heavy math focus. With an experienced, highly qualified, and effective basic skills instructor in place, CTE faculty are far more likely to recognize the value they bring to the classroom. Sometimes, in order to get an IET program started quickly, shortcuts may be made in this area. Invest the time in hiring right in order to achieve long-term success.

- *Basic Skills Faculty Characteristics* – CTE faculty may initially feel uncomfortable having another faculty member assisting students within their classroom and observing their instruction. Basic skills faculty hired to teach within an IET program need to understand that they have not been hired to judge, and they are not expected to train or advise the CTE faculty. As such, hire basic skills instructors with excellent communication skills who are able to listen, observe, and artfully insert instruction to assist students in areas of confusion or academic weakness. There is little place for ego in the IET environment. Trust is built over time, and greater collaboration and ability to receive constructive feedback result when a firm foundation of trust has been established.

- *Basic Skills Faculty and Interviews* – Create a separate job description for the basic skills IET instructor position. In this way, current basic skills instructors, as well as those from outside the community college, may better understand the role and qualifications. Interviews can then be conducted of all applicants, even those who currently work within the adult education program, to ensure candidates are a solid match for the model.

- *Schedules* – Basic skills faculty attend portions of all CTE classes, in addition to providing supplemental support outside of the CTE schedule. These schedules are often varied, requiring flexibility and a large number of available work hours per week. Basic skills instructors are often part-time, coordinating teaching positions from multiple institutions, or they may have a desire to teach a traditional adult education course in addition to the IET program. This may not be possible for basic skills IET faculty, due to the CTE class schedule. Avoid making exceptions to allow

basic skills faculty to miss particular CTE courses to accommodate other work opportunities, whenever possible. Ensure faculty understand the schedule and necessary work hours prior to hiring.

- *Duration of Commitment* – Some IET programs involve more robust certificates, with instruction spanning over multiple academic semesters. It is strongly recommended to hire basic skills faculty from the onset who are able to remain throughout the duration of the program. Despite the fact that a committed schedule for the entire program is recommended, the CTE class schedule may not be determined far in advance at some institutions. As such, basic skills instructors need to understand that the schedule may differ each semester, yet their commitment to remain with the program throughout its duration is required. The IET program should be a first priority for basic skills faculty hired to teach within the model.

COMPENSATION

Faculty compensation rates should be established prior to recruiting IET faculty to participate in the program. Rates and compensation methods vary greatly between institutions, and when initially developing an IET program, it may be difficult to determine an appropriate compensation methodology. The options below are not all-inclusive but provide examples for consideration. For community colleges with a faculty union, it will likely be necessary to negotiate the compensation methodology in advance.

- *Planning Time* – In order to develop common learning outcomes and integrate instruction, IET faculty need to set aside time outside of the classroom to collaborate and plan. In some colleges, this may not necessitate additional compensation and is included as an expectation of all faculty. In others, a pay rate will need to be established for an identified number of planning hours per week for all IET faculty. In some cases, a full-time faculty member may not receive additional pay for this planning time, while a part-time faculty member may be paid at an hourly meeting rate. In some instances, planning time will be compensated during the initial semester for a new faculty pairing or pathway but not in subsequent semesters.

- *Support and CTE Classes* **–** Typically, basic skills instructors are paid at their regular pay rate for teaching the paired, contextualized support class, given this is an individual course and is taught solely by the basic skills instructor. Likewise, CTE faculty are often paid at their regular pay rate for the delivery of their CTE courses in

the IET environment. In most cases, the content of the CTE courses remains largely unchanged, despite the presence and support of the basic skills instructor.

- *Basic Skills Faculty Time in CTE Classes* – A pay rate will need to be developed to compensate the basic skills instructor for time spent within the CTE classroom. Consideration should be given to the percentage of overlap time spent within these classes (e.g. 50% or 100%), total number of hours per week required, and work expectations. Is the instructor actively teaching while in the CTE classroom, tutoring students, or observing? If actively teaching, they may be paid at the regular teaching rate or a team-teaching rate equivalent to the number of hours required. If tutoring or observing, a lesser rate may be established. For example, if the basic skills instructor is present for 50% of the CTE class time but is not actively teaching, the credit or contact hours of the CTE classes may be divided in half, and the instructor may be paid at 50% of their pay rate for those credit/contact hours. As this is one of the more costly elements of the IET model, some colleges may reduce the overlap time within the CTE classes over time, as basic skills faculty gain mastery over the content.

- *Team-teaching Rate* - Some community colleges already have an established rate for team-teaching and use this rate for both teachers in cases where the basic skills instructor is actively teaching alongside the CTE instructor.

PROFESSIONAL DEVELOPMENT AND SUPPORT

Faculty recruited to teach in an IET program will likely be doing so for the first time and may be lacking familiarity with the model. Likewise, advisors/career navigators and administrators may need guidance and assistance as they develop and implement IET programs. Professional development is necessary to effectively train and ensure integrity to the model. Following are some examples of IET professional development activities:

- *State-Level Professional Development* – In cases where a state has implemented a broad-based IET initiative, workshops, webinars, and other online resources may be available. For example, Illinois holds an annual Transitions Academy, offers webinars on topics ranging from braided funding strategies to team-teaching, produces a transitions newsletter, and maintains a web-site including various IET resources, including a menu of team-teaching resources. A mentoring program is available wherein seasoned IET colleges are paired with colleges new to the IET model, and designated state employees are available to provide technical assistance and support.

- *National Professional Development* – As popularity of the IET model increases, sessions on the topic at national conferences are on the rise in both the adult education and CTE fields. The National College Transition Network offers an annual conference and maintains a web-site (www.collegetransition.org) filled with numerous training resources, such as a College and Career Navigator Trainer Manual, team teaching online courses, and a training manual with seven hours of content for new IET program administrators. Consider sending a cross-functional team of basic skills and CTE faculty to a national conference on the subject, providing an opportunity for the group to develop rapport while expanding their understanding of the model.

- *Structured College Visits* – IET faculty pairs or the entire IET team from a college may visit other IET colleges to observe, question, and gain a broader understanding of the model. This can serve as an excellent way to gain practical tips, identify best practices, and establish a network of IET colleagues.

- *Mentoring* – Colleges similar in size and population may be paired, to allow seasoned IET colleges to guide and mentor colleges new to the IET model. The state may provide a structured program, or colleges may need to reach out individually to identify a mentor college. The level of formality and depth may differ, but it can be helpful for a new college to have a stable and available resource at hand to resolve practical questions and issues that arise.

- *Observation In-House* – A low cost and simple form of professional involvement involves observation, wherein new faculty pairs observe existing IET pairs in action. This can serve to develop a community for IET on campus but may offer a more limited scope, given the internal focus within the college.

Overall, it is recommended that a combination of professional development strategies be used to prepare faculty, administrators, and support staff new to the IET model.

Incentivizing Participation

It may be necessary to develop incentives to encourage faculty participation in IET professional development activities. Basic skills faculty are sometimes required to complete a particular number of professional development hours annually and have been recruited specifically to teach in the IET model. As a result, they are often more likely to be motivated to

complete professional development activities. Existing CTE faculty are typically approached and asked to participate in the IET model. Whether interested or reluctant at the onset, it may be more challenging to create an incentive to attract them to participate in professional development. While stipends are a possibility, a promising practice involves bringing professional development to the college, versus requiring faculty to travel and attend sessions elsewhere.

FACULTY EVALUATION

As within any college classroom environment, faculty evaluation is a critical component to ensuring high quality instruction is taking place, leading to high rates of student success. Union contracts and tenure processes may dictate the evaluation process at a college, which may limit flexibility and frequency. However, classroom observations and feedback are needed early when implementing an IET program. Colleges in a unionized environment may be successful negotiating an additional or specific evaluation for first-time IET faculty, given it may be implemented initially as a pilot or new initiative. If this opportunity is restricted by contract limitations, a peer observation by other IET faculty may be a possibility. Identify the desired evaluation process at the onset and gain agreement by all parties before launching.

The evaluation process should focus on providing helpful feedback with the intent of improving instruction. Self-assessments, student evaluations, and classroom visitations are common evaluation components, with numerous evaluation tools and resources available for use. However, there are some additional factors to consider within the IET classroom. How

these factors may best be incorporated into the evaluation process depends largely on the team-teaching model employed and the culture and policies of the community college.

- Is the basic skills instructor appropriately involved in the classroom? If observing or tutoring, are they focusing too heavily on a small group of students, perhaps leading to social stigma, or are they moving through the room, providing support to all?

- Are behavioral issues addressed appropriately? For example, the basic skills instructor should not become the default person responsible for all behavioral issues. Ideally, evidence of a cooperative approach between faculty in addressing pervasive behavioral issues should be found.

- The expertise and role of the basic skills instructor should be maximized. Are faculty members presented as equals, or is the CTE instructor presented as the expert, with the pedagogical expertise of the basic skills instructor de-emphasized? Do faculty turn-take fairly and with logical transitions?

- Are learning outcomes integrated? Is the content of the support course clearly linked and contextualized to CTE course content? To what extent does the CTE instructor encourage and link assignments to the support course? How are learning outcomes assessed? Multiple methods of assessment should be used, and evidence of formative assessment should be present.

- Group work, peer-to-peer activities, and active learning strategies should still be present within the IET classroom. Is the level of teacher-to-teacher interaction in the classroom appropriate, and are active learning strategies used?

- How do students evaluate the necessity and value of the support class? Are formal student evaluations completed each semester? In what way do faculty reflect on student feedback and self-assess their performance?

- How do faculty assess their communication and ability to work successfully as a team? Do they feel they have adequate planning time together? This can be a delicate topic, but it is important that the CTE faculty feel basic skills faculty are competent and have the aptitude and mastery to provide contextualized support in the respective content area. In some cases, a basic skills instructor may be surprised by the level of difficulty in a given area, and not every new faculty pairing will ultimately be successful. Open communication and a peer evaluation mechanism may assist in bringing any concerns to light.

CONCLUSION

When developing the IET model, it is important to consider the organization's culture, tailoring program elements to create a successful fit. Attention should be given to hiring effective faculty, developing a compensation methodology, creating a professional development plan, and completing faculty evaluations. The team-teaching component is one of the most critical elements of the IET program, and careful planning is needed to avoid poor faculty matches and ensure faculty are prepared, qualified, and a good match for the program.

CHAPTER 8: CAREER READINESS !

INTRODUCTION !

Career readiness activities and services help to fulfill the Department of Education's workforce preparation component of the IET model. These activities and services may be imbedded within the team-teaching or support course environment, provided by an additional staff member, delivered within a stand-alone course, or offered via a collection of activities, such as workshops and field trips. This chapter provides guidance in the area of career-readiness, including a description of the career navigator's role and purpose, suggestions related to various career readiness activities, and a discussion related to team member roles.

CAREER NAVIGATOR

The career navigator is a critical position within a successful IET program. The creation and maintenance of a dedicated career navigator position for the IET program is strongly recommended. The navigator is a position that serves as an advisor, supporter, barrier-remover, recruiter, case manager, cheerleader, and mentor to IET students. The navigator is ideally dedicated solely to serving IET students, providing a student to navigator ratio that is far smaller than with that of a traditional academic advisor. Based on the NACADA 2011 National Survey of Academic Advising (Carlstrom, 2013), the median case load of advisees per full-time professional advisor was 260 at two-year colleges and as high as 600 at large institutions. The caseload for IET career navigators will differ by college but is likely to be far smaller, ranging

anywhere between 15-100 or more students. Returning adult students may be lacking in college knowledge and often arrive with anxiety regarding the college environment. Navigating the admissions and registration process alone may be enough to deter a student from enrolling and ultimately persisting. Having a dedicated, single point of contact reduces this anxiety, providing a guide to help students navigate the system from start to finish.

Responsibilities of the career navigator will vary based on the organizational structure of the college, existing personnel, available funding, and the size of the IET program. Following are some of the typical job responsibilities of a career navigator (CN):

- *Recruitment* – CNs develop marketing materials and strategies, present internally and externally to potential students and other stakeholders, meet periodically with academic advisors, registration and records, and other relevant departments on campus to increase awareness and referrals, and engage externally with community-based organizations, employers, workforce development agencies, and others to create a referral pipeline.

- *Student Support* – CNs establish and maintain trusting relationships with IET students, share information regarding the program and overall career pathway, assist with career research and planning, and provide referrals to resources on campus and within the community to remove participation barriers. They assist students with admissions and registration processes, including financial aid and scholarship applications. They follow up on absences, monitor grades and overall student progress, and implement other retention strategies. CNs provide individualized résumé development assistance and assist with job search efforts, facilitating workshops and field trip activities. They recognize student achievements both formally and informally, assisting with the transition to further postsecondary education at the close of the program, moving students progressively toward self-sufficiency and independence.

- *Program Planning, Compliance, and Coordination* – CNs establish and review college registration procedures in a collaborative fashion, facilitating meetings and serving as a liaison between members of the IET team. They ensure compliance with any necessary standardized pre and post-testing, tracking and reporting student attendance, as needed. They monitor student behavior and resolve conflicts that may arise. They serve as a primary contact for external partners and community agencies, identifying opportunities for students to receive real-world experiences in

the field, including interviews with employers, field trip activities, and internships. Finally, they organize assessment and evaluative activities for the program overall.

Typical qualifications for a career navigator include a bachelor's degree, related work experience (minimally two years recommended) in education or a social service setting, case management experience, effective presentation and communication skills, experience working with diverse, at-risk populations, a valid driver's license, knowledge of Microsoft Office applications, and potentially Spanish language skills, if applicable. Work experience involving mentoring, counseling, coaching, advising, and/or career navigation is preferred, as is experience working in the field of adult education. It is typical for the career navigator to report through the adult education division, as this area is often responsible for the oversight of the IET program, though this structure may differ between colleges.

Various forms of professional development exist to train and support career navigators, such as the College and Career Navigator Trainer Manual developed in 2014 by the National College Transition Network as a part of the Accelerating Opportunity initiative. State agencies governing adult education and CTE may also offer other formal face-to-face and/or online trainings designed for career navigators. For example, the Southern Illinois Professional Development Center (SIPDC) offers a web-page specifically for career navigators, including webinars, a collection of best practices, and online professional development training modules. Chapter 2 (Literature Review) provides additional information related to available IET program resources. In the next section, specific recommendations related to aspects of the career navigator position will be provided.

RÉSUMÉ DEVELOPMENT AND MOCK INTERVIEWS

The career navigator often takes a lead role in directly assisting or facilitating the creation of a résumé and basic cover letter for IET students, while ensuring they receive adequate practice in the area of interviewing. In some colleges, the navigator may connect students with existing resources in a career services area in order to gain personalized assistance with interviewing and résumé writing, but it is often the navigator who assists students with résumé development and interviewing skills development. As such, it is necessary for the navigator to have the skills required to do this effectively.

The extent to which the navigator provides one-on-one assistance to students in this area may be influenced by the caseload within the IET program. At the larger group level, the navigator may structure required workshops on these topics that are offered periodically over the course of the semester, in which case dates and times should be set and communicated to students at the time of enrollment. They may also bring guest employers to campus to provide mock interviews or solicit volunteer administrators from the college to perform this function. Typically, the navigator spends time individually with students, ensuring their résumé effectively illustrates their educational and work experiences, as well as any special skills they may have acquired.

One of the ways that navigators help students is through mock interviews. Mock interviews help students learn how to respond to challenging questions, develop interview strategies, improve their communication skills, and reduce stress prior to an actual interview. Typically, the navigator should conduct or facilitate interviews lasting no more than 30 minutes, and the interviewer should plan to provide constructive feedback after its completion. In the

IET environment, it is ideal for the navigator to secure an employer from the field to complete mock interviews, as the questions asked will be more authentic and specific to the jobs students will be seeking. If this is not a possibility, it is helpful to request sample interview questions from employers. It may be helpful to create a digital recording or taping of the interview, to allow the student to view themselves after the fact.

Prior to the interview, students should be given guidance by navigators on how to best prepare, such as arriving early, bringing copies of their résumé, appropriately handling issues related to compensation, wearing professional attire, and constructing appropriate questions for the employer. Finally, they should be prepared with responses to typical interview questions. It is recommended that the navigator assist students in preparing responses to questions in advance. Following are several general interview questions for consideration, although this list is not comprehensive and omits questions specific to a particular field, which is preferable within an IET program:

- Tell me a about yourself and your background.
- What is your greatest strength and your greatest weakness?
- Tell me about a time when you failed at something. How did you handle it?
- How do you handle stress and pressure?
- Describe how you work with other people. What kind of experience have you had working with a team?
- How does this job fit within your career plan?
- How would your co-workers describe you?
- Why are you interested in this job?
- Why are you the best candidate for this job?

The résumé and cover letter serve as an opportunity for students to market themselves to employers by summarizing their education, work experiences, and skills, with the goal of obtaining an invitation to interview for a position. In some CTE fields, employers do not always require a résumé for entry level positions, but students will be better prepared and will stand out from other candidates by supplying one at the time of application. Following are some basic tips related to résumé development, which the career navigator may consider when working with IET students:

- *Focus on Accomplishments* – Rather than listing out job duties from past employment experiences, the résumé should highlight accomplishments, whenever possible. Experience in both technical and transferable skills should be included.
- *Action Verb Usage* – Each bullet should begin with an action verb that highlights the skill to be described in the accomplishment statement. The use of pronouns and introductory/concluding phrases, such as "My job responsibilities included…," should be avoided (DePaul University Career Center, n.d.).
- *Appearance* – The font selected should be easy to read and use 10-12 point font size, margins should make the document visually attractive, and whitespace should be included. Consistent formatting should be used, such as ensuring all titles are in bold, and bullets and sections headers are properly aligned. Many free résumé templates are available to ensure consistency in formatting.
- *Error-Free* – The résumé should be absolutely free of errors, without any mistakes in grammar, spelling, or punctuation.
- *Length* – For entry-level positions, résumés should be kept to one page.

Cover letters are frequently omitted by candidates seeking entry level positions in trade fields, but they provide an opportunity to make a strong first impression to the employer. If the student has very little work experience, or has never worked in the targeted field, it may be challenging to craft a persuasive cover letter, and the career navigator may need to assist. In this case, it is a recommended that the cover letter not exceed one page, but it equally should

not be comprised of one or two sentences. It is important to personalize the cover letter to the employer and specific position.

As a general guide, the letter should include an introductory paragraph, wherein the student explains who they are, the position they are applying for, and how they learned about the job opportunity. It can be helpful in this paragraph to highlight any connections they may have with the company. Next, students should explain how they are qualified for the position, which would minimally include their educational experience within the IET program. If they have transferable skills from a differing field, these should also be highlighted. In the third paragraph, students should highlight their best qualities and explain why they are a good fit for the company and position, using succinct, real-life examples to illustrate. Finally, the concluding paragraph should summarize the fact that they are a great fit for the position, thank the employer for taking the time to review the application, and express a desire for the opportunity to interview (Glassdoor, 2015).

The résumé and cover letter serve as the first opportunity to make a good impression, and by helping IET students develop these tools, they will be more likely to secure an interview. The interview then provides the chance for the student to convince the employer that they are the right candidate for the position. IET students often have little experience with professional interviews, so time spent preparing and practicing for interviews will pay off, resulting in students successfully attaining employment following program completion.

FIELD TRIPS AND JOB FAIRS

IET students may have little or no prior experience attending job fairs, trade shows, and internship/apprenticeship fairs and may have had minimal exposure to the workplace environment in their targeted field. It is recommended that the career navigator, or possibly the support course instructor, design such opportunities and imbed them within the overall program schedule and design. CTE faculty are likely to serve as the best resource to identify and recommend many of these events, so it is suggested that the career navigator work with CTE faculty in advance of the program to start to build a series of high impact experiences for IET students. Dates and times for these activities can then be included within the overall program schedule and shared with students prior to committing to the program.

Following are several examples of experiences to be considered:

- *Employer Site Visits* – Identify several local employers, representing a variety of work environments in the field, and schedule site visits to their locations. Request that a representative from the employer provide a tour and overview of the company, discussing the types of jobs available and any relevant information regarding job opportunities or skills/attributes they look for when hiring. This will help IET students understand the actual work environment and may help them develop a preference for one type of employer over another.

- *Conventions, Trade Shows, and Expos* – These opportunities often serve as a meeting point in the respective industry. Companies have an opportunity to showcase their latest products and services while meeting with industry partners and potential customers. For IET students, a local convention may serve as a unique opportunity to experience a trade show in action and may help students gain a more complete understanding of the opportunities and developments in their field, inspiring students to aspire to opportunities beyond entry level employment.

- *Career/Job Fairs* – Job fairs and career expos/fairs serve as an opportunity for companies to provide information to potential employees and for potential employees to meet employers. While the jobs available may or may not be in the career pathway area, this type of activity serves as an excellent training ground for IET students. They can practice approaching employers, presenting their résumé in person, making a good first impression, and asking relevant questions. In some

cases, students may even make a connection that ultimately leads to a job opportunity.

These types of activities enhance the IET model. While their inclusion is not critical to implement the model with fidelity, they serve to broaden students' horizons, providing opportunities to practice, develop, grow, and make educated decisions regarding future employment. Additionally, attending these activities as a group serves to strengthen the bonds of the cohort, which can positively influence retention and learning outcomes.

STAND-ALONE COURSES AND WORKSHOPS

Employers look for a combination of hard and soft skills when hiring new employees. In terms of hard skills, they seek candidates who have the requisite technical skill set in place, such as a welder who knows how to weld. Community colleges are good at producing these candidates, so long as their curriculum is aligned with industry need. However, employers repeatedly report a serious challenge in hiring candidates with critical workplace soft skills, those interpersonal skills that help individuals interact with others in the workplace. These include skills that can be more difficult to measure, such as being willing to accept feedback, having the ability to think creatively, communicating effectively, being a team player, having strong critical thinking skills, and demonstrating a strong work ethic (Doyle, 2017). According to a survey by Adecco Staffing USA, 44% of employers reported the biggest proficiency gap in the U.S. workforce as involving a lack of soft skills (2013). Further, the International Association for Administrative Professionals, OfficeTeam and HR.com reported that 67% of Human Resource managers would prefer to hire a candidate with strong soft skills, even if technical skills were lacking, while only nine percent preferred to hire someone with strong technical credentials but

weak soft skills (Feffer, 2016). As such, IET programs are charged with producing students who have developed both hard and soft skills, and it is recommended that soft skills training be imbedded within the IET program design.

Ideally, CTE faculty have imbedded soft skills outcomes within their existing curricula, but the reality is that this is done inconsistently, at best. This is a broader issue for community colleges, as all college graduates have a need to develop soft skills. But, in the context of IET program development, much can be done to ensure IET students leave the program with strong technical and soft skills.

Support course faculty have a limited amount of time in which to assist students with the content skills necessary for success in their CTE courses. As such, it is recommended to allow the majority of the support course instructor's time to be spent on content-related instruction. To address instruction related to soft skills, it is necessary to require that students participate in any activities developed, which should be communicated to students prior to program enrollment. A balance must be struck to ensure that the amount of time allocated to these activities is appropriate, and students should perceive the value of participating. One method of implementing this is to have the CTE instructor base a small portion of their course grade on the student's participation level in these activities. It is also recommended that these activities be spread throughout the duration of the IET program, versus being chunked into "one and done" type offerings.

One option to consider is the provision of an additional class, beyond the CTE content and support courses, specifically dedicated to career readiness/soft skills development. This may be a shorter course that meets once per week for ninety minutes, or a course that meets

only for a portion of each semester, such as 10 out of 16 weeks. The frequency and duration may be impacted by the overall IET schedule, which will differ by pathway program area. It is recommended that this course be free of charge to students, as it is with the support course, if at all possible. The enhanced features of the IET program model should not act as a financial deterrent to students, who could otherwise enroll into CTE courses individually, at a lesser cost. By offering the course free, it serves as an incentive to participate in the program. In the event a stand-alone course is not feasible, another option to consider is to offer a series of modularized workshops on soft skills topics, scheduled periodically throughout the duration of the IET program. These again would be communicated in advance and would be required. Alternatively, the IET curriculum might be contextualized to address some of these issues.

Logistically, if running multiple IET pathway programs, it may be possible to combine students into one group for the soft skills component, depending on the number of students involved. This can be more manageable from a budgetary standpoint, though differing schedules, class sizes, and other factors may make it challenging to achieve. Additionally, in terms of identifying an appropriate instructor, you may choose to hire someone specifically for this purpose, an existing employee from career services, or the career navigator, depending upon what works best for your program. If structuring a series of workshops through career services, for example, it may be possible to reduce the program budget, as this would already be a job function of the department. Or, career readiness activities can be imbedded with the CTE content classes, providing a benefit for CTE students outside of the IET model, as well. Following are some suggested topics to address, whether through a stand-alone course or a series of workshops:

- *Personal Presentation and Desirable Traits* – First impressions are important during the job search process, but they equally impact an employee's ability to retain employment and advance. Potential topics include making a good first impression, appropriate dress, personal appearance (including body art and personal care), maintaining good health, demonstrating a positive workplace mindset, effective communication and appropriate interactions, and pursuing personal and professional growth.

- *Personal Management* – Employees cannot allow personal barriers to interfere with their success in the workplace. Potential topics include time management, developing a schedule and transportation plan, problem solving when issues occur, understanding when to consult and compromise, managing personal finances, arriving on time, avoiding excessive absences, and demonstrating a positive work ethic.

- *Teamwork and Communication* – Employees need to communicate effectively and appropriately with their supervisor, team members, and other colleagues. Potential topics include working within a team, conflict resolution, demonstrating leadership, goal-setting, written communication for the workplace, phone/verbal communication, appropriate use of e-mail, and non-verbal communication.

- *Job Search and Preparation* – While career search and readiness skills may be addressed by the navigator outside of the soft skills workshops or class, these may also be included here. Topics to consider include job search, résumé and cover letter development, personal finance, written communication for the workplace, phone/verbal communication, and non-verbal communication.

DEFINING TEAM MEMBER ROLES

When developing an IET program, it is important to fully clarify and delineate job responsibilities and duties for each IET team member from the onset, ensuring others on campus with potentially overlapping duties are considered in that planning. This concept extends beyond the boundaries of the career readiness category but is particularly relevant in this discussion. The career navigator position, in particular, has numerous job functions that are typically handled by others on campus, but on a much broader scale, for the general student population. It is not unusual for the career navigator position to, at some point or another, duplicate the work of another employee or department. To mitigate this, it is critical for the

navigator to have excellent communication skills and to collaborate and plan with others effectively. Following are some potential areas to be considered:

- *Academic Advisors or Counselors* – Advisors work with students to map their career plans, select programs of study, discuss participation barriers, transfer opportunities, and more. They typically have a high advisor to student ratio, by necessity, and may or may not have a specified caseload of students. Within the IET model, the navigator has a much smaller caseload and is involved with students at a deeper level, proactively engaging with students on a regular basis. It is important for the navigator to understand that advisors and counselors may have a better understanding of various matters related to academic planning, should a student wish to deviate or transition beyond their program, and they are better positioned to discuss transfer options. Prior to implementing the program, ensure advisors and counselors understand how the navigator will be working with IET students, and develop an understanding of how the advisors/counselors will be included, such as at the time of IET program completion. Additionally, the navigator should schedule regular meetings with advisors, to encourage referrals and ensure all parties understand the IET program thoroughly.

- *Admissions* – Admissions personnel conduct various recruitment activities for the college at large, presenting at local high schools, staffing recruitment tables at fairs, assisting students with the application process, and serving as the first point of contact for many of the new community college students. Also, in community colleges, many CTE programs are responsible for their own recruitment, so engaging with faculty to invite referrals is important. In the case of the IET model, it is typically the career navigator who handles recruitment specific to the program, presenting within adult education classes, at community meetings, and elsewhere. However, IET students are simply a smaller segment of the CTE student population, a group receiving enhanced support. Ultimately, recruitment is a joint effort. It is important for admissions personnel to understand the IET program intimately, as they are well-positioned to promote the program. Efforts between the navigator and admissions personnel should be complimentary versus duplicative.

- *Career Development Services* – Most colleges have a career services area, responsible for career counseling, career exploration activities and classes, interest and personality assessments, and resources to help students select a major and career. They may provide assistance with job search activities, such as résumé writing and mock interviews. Within the IET model, many of these services are delivered by or coordinated by the career navigator. Once again, career development services personnel need to be met with periodically, to ensure they understand the benefits of the program, as they work with and guide students to pathway areas. Additionally, the navigator may wish to coordinate activities with

this area versus delivering all services directly. For example, career services may meet with IET students to complete a personality assessment, provide mock interviews, or offer a résumé writing workshop.

- *Wellness Professionals* – Some community colleges have wellness professionals or behavioral counseling on campus, responsible for counseling students individually who are in crisis or providing preventative awareness and educational activities. While the navigator maintains a close relationship with the IET students and engages in discussions that may become personal, involving barriers at home, financial struggles, personal struggles, and more, they should be careful to connect students with a licensed counselor or wellness professional, whenever necessary. The navigator is not necessarily qualified or equipped to deal with a student who is contemplating suicide, for example, and it is important to understand the next line of defense, should the need arise.

- *Faculty* – CTE faculty often maintain close relationships with area employers in their field. As the navigator strikes out to engage with employers to coordinate field trips or schedule mock interviews, communication should occur with any relevant CTE faculty in advance. For example, the CTE faculty may be aware that a particular employer is undesirable and treats employees unfairly. This would be an undesirable employer relationship to cultivate. Or, the faculty member may already have an arrangement with an employer, wherein they offer their time by coming on campus to speak to the CTE classes. In this case, it may strain the employer to be pulled in two directions. By working collaboratively with CTE faculty on employer outreach efforts, miscommunication can be avoided, and a more coordinated approach can be achieved.

IET programs require a team-based approach, with the career navigator serving as the hub. The navigator leverages existing services for IET students but also delivers some of these services directly or performs other functions typically handled by other employees. As such, it is recommended that clear communication occur early and often to avoid potential future conflicts.

CONCLUSION

The IET program is designed to address skills beyond the academic skills necessary for success in the CTE classroom and provides experiences to expand students' horizons and long-

term career goals. The career navigator position serves as the foundation, coordinating activities, developing a close relationship with IET students, and helping them develop professional skills over time. Students are exposed to the world of work through field trips, job fairs, and career expos, and résumés and cover letters are developed to help them secure that initial job in their chosen field. Workshops or stand-alone soft skills courses help students develop the communication skills and appropriate workplace behaviors necessary for job retention and advancement. Finally, in delivering these services, the role of each IET team member must be carefully considered, to ensure a coordinated effort. In sum, career readiness is a critical outcome of the IET program model, affording IET students an advantage over their competition in the workplace.

CHAPTER 9: PLANNING AND LOGISTICAL CONSIDERATIONS !

INTRODUCTION

Many practical and logistical issues must be addressed when developing and implementing a new IET program. This chapter is designed to illustrate some of these issues and provide recommendations in such areas as cohort design, course/program length and intensity, and joint course scheduling. A section on model fidelity and exceptions is provided, to help avoid common pitfalls in this area. An overview of bridge programs in included, illustrating how they differ from the IET model but can be used in a complimentary fashion. To ensure proper guidance is provided to students, tips for securing student financial assistance are provided. Finally, partnership opportunities with outside organizations are presented, particularly for colleges seeking to coordinate program delivery with another institution. By considering these logistical issues at the onset, a more efficient and successful program design can be achieved.

COHORT MODEL

Students within the IET model should be enrolled as a cohort or group, attending all classes together and remaining together throughout the duration of the program. Referred to as closed cohorts, these are each comprised of a group of students who “complete a program of studies together, engaging in a common set of courses, activities, and/or learning experiences” (Barnett & Muse, 1993, p. 401). While students may drop out of a cohort, new

members are not added in the midst of the program. Students participating as a cohort develop strong bonds and come to rely upon each other for emotional, logistical, and academic support. Students hold each other accountable for attending, share transportation, coordinate childcare, and create a general support network. Closed cohort models can improve persistence, enhance student completion, and lead to future learning achievements (Hebert & Reynolds, 1998). It is highly recommended that fidelity to the closed cohort model be maintained.

Benefits of the closed cohort model extend beyond the social, emotional, and logistical realms. In today's global society, students must be effective at working in teams. According to Kivunja (2014), it is critical that students be explicitly taught how to work well with others in order to be prepared for the 21st century. He asserted that instruction must be provided to help students develop skills in critical thinking and problem-solving, effective communication, collaboration, creativity, and innovation. However, it takes effort to ensure a cohort bonds, gels, and maintains a healthy culture. The closed cohort remains together for all courses, often over multiple semesters, making it critical for relationships to be carefully tended and cultivated.

In a closed cohort environment, one negative and distracting student can significantly impact the culture. Behavioral commitments should be made clear at the onset, and issues that arise should not be ignored. It is better to remove one problematic student than to sacrifice the success of the whole. Following are tips for forming and maintaining a positive cohort culture:

- *Whole Class vs. Imbedded Cohort* – For a number of reasons (e.g. financial, size, limited availability of classes), some colleges are able to hold full classes comprised of IET students, while others set aside seats for the cohort within existing CTE courses. In the imbedded cohort model, while the group remains together throughout the program, they attend in the presence of other CTE students who

may differ between classes. Whenever possible, it is recommended that the entire class be comprised of IET students. In this way, support can be provided to the entire class even within the CTE courses, and the IET students are in no way ostracized or labeled as being lower-skilled.

- *Orientation and Team-Building Activities* – As described in an earlier section, the cohort bond begins immediately, at the time of orientation. Team-building activities should be incorporated into orientation, inclusive of a mixture of active/fun activities and discussion topics that, while not putting students on the spot, begin to encourage students to open up and create connections with one another. Care should be taken to remember that IET students are adult students, and team-building activities should be relational and contribute value to their learning experience.

- *Fostering Barrier Removal* – A key benefit of the closed cohort in IET programming is the logistical linkage between students. Students may carpool, consolidate children for childcare purposes, and provide help to one another when sick or absent. The IET team can help establish these linkages early on by identifying barriers, learning more about the needs of participating students, and encouraging connections.

- *Understanding Personnel Limitations* - The basic skills instructor and career navigator, while not social workers or therapists, often find themselves taking a primary role in listening to students, providing referrals, and facilitating conversations at a deeper level than within the traditional classroom. These individuals need to understand what their role is and is not, given they are not licensed counselors. Students should be connected to available services, such as wellness professionals and counselors, whenever necessary. It is also helpful for the IET team, inclusive of CTE and basic skills faculty, the career navigator, and others, to communicate regularly regarding cohort members to develop plans, referrals, and a network of support.

LENGTH AND INTENSITY OF THE PROGRAM

The IET model is intentionally designed to be accelerated and intensive, with imbedded support provided throughout. Underprepared adult students, as described earlier, face many barriers and often stop out prior to completing certificate and degree programs. The IET model addresses this by condensing classes into a prescriptive block schedule designed to ensure students complete as quickly as possible. In this way, classes within the certificate program are scheduled to minimize excessive breaks between classes and consolidate the number of days

on campus per week. They are also structured to ensure students complete all courses within one year (or less), thus removing the "cafeteria-style" model, wherein students self-select classes. According to Bailey, Jaggars, and Jenkins (2015), the historical open-access nature of community colleges led to the establishment of programs with flexible options to meet the needs of all community members. Yet, this flexibility has a downside. With so many available pathways and options, poorly explained opportunities, and disconnected support services, students are dropping out and wasting money on unnecessary courses.

Acceleration can be defined as "the reorganization of instruction and curricula in ways that facilitate the completion of educational requirements in an expedited manner" (Edgecombe, 2001). In the IET model, programs focus on certificate bearing programs that are typically less than one year, reducing time to completion and increasing the likelihood that underprepared students graduate with one or more industry-recognized credentials. According to a survey of IET programs conducted by the Center for Law and Social Policy (CLASP) in 2017, IET program length varies significantly. Washington's I-BEST model served as the original framework for IET programming and was designed in response to the state's "tipping point" research, which revealed that family-sustaining wages correlated to the completion of one year of postsecondary education and an industry-recognized credential. As a result, the Accelerating Opportunity initiative was designed with this one-year tipping point in mind.

In a 2016 survey conducted by CLASP, 18% of IET programs were found to last 18 months or more, 24% lasted six to 12 months, and 27% lasted two to six months. While it is important for some students to gain employment as rapidly as possible, colleges should aim to create IET programs with the one-year goal in mind. The "tipping point" study in Washington

State revealed that students who complete at least two semesters of credit-bearing coursework and earn minimally one credential have a substantial earnings advantage over students earning 10 credits or less (Jenkins, 2008). As a result, IET programs are designed to help underprepared adult students hit the tipping point by completing at least 10 credits over the course of two semesters (or less than one year), in general. The economic prospects of participants improve when more robust certificates and programs are offered, and federal financial aid can be more easily leveraged (Mortrude, 2017). Some states dictate a minimum number of permissible credit hours for an IET program. For example, in Illinois, programs must provide minimally twelve hours of transcripted credit or apply for a waiver. When a shorter-term certificate is offered, colleges should make special effort to ensure the program leads logically to a subsequent stackable credential beyond the IET program and that students are transitioned seamlessly into it upon completion.

When considering program intensity, other program requirements should be considered. The support course, while not a part of the CTE certificate, should be required and built into the overall schedule. Similarly, if a stand-alone career readiness class is added into the IET program, an additional time commitment will be necessary. Clearly mapping out the overall program design and time commitment from the onset will help students make an informed decision prior to enrolling.

JOINT COURSE SCHEDULING

One of the more challenging logistical issues in IET program development involves course scheduling. The CTE program selected for the IET program may have an existing course

schedule that does not lend itself well to the model. It is important to understand that faculty within the CTE program may be accustomed to their traditional schedule and may be reluctant to change. From the onset, IET faculty and administrators responsible for scheduling should be involved in the scheduling discussion with CTE. It is ill-advised to develop and implement a schedule to which faculty are strongly opposed, while at the same time, it is important that the schedule be designed to meet the needs of participating students.

Following are tips and strategies to assist in developing a favorable schedule:

- *Gain Faculty Support* – It is highly preferable to get CTE faculty on board with the development of the new IET schedule that meets students' needs. Resistant faculty are able to singlehandedly terminate an IET program, if they are in primary control of the class schedule. To garner support for a revised schedule, try sharing data on student availability, and illustrate conflicting student work schedules and life commitments. In some cases, CTE programs are designed with overlapping required courses, making it difficult for non-IET students to complete within a year. One strategy to overcome these barriers might be to share scheduling conflicts and data on how long it takes traditional CTE students to complete in order to demonstrate the negative impact these factors have on student completion. Another might be to establish a common goal to create a prescriptive schedule that accelerates completion, encouraging faculty input within given parameters, such as the number of days per week or hour ranges per day.

- *Design a Committed Schedule for Duration of Program* – Not all community colleges establish the schedule for multiple semesters at one point in time. As such, it is impossible for students to predict what their schedule will look like in subsequent semesters. When recruiting students for an IET program, it is essential to develop a committed schedule for the entire program, to avoid encountering barriers to participation that may impact completion in the second semester or beyond. Even in the case of low enrollment in a particular class (which may occur if the cohort is embedded within existing CTE classes), the class must be guaranteed to run. This requires institutional commitment and pre-planning. The idea of a committed schedule beyond one semester is a great benefit to traditional CTE students, as well, positively influencing certificate completion for all students.

- *Inclusion of the Support Course* – CTE programs may be accustomed to developing their class schedule in isolation, with no need to coordinate with another academic division. In an IET model, this may result in the adult education program attempting

to fit the support class into a schedule after it has otherwise been set, often at odd times that may not maximize effectiveness and student participation. Include faculty and administrators from both adult education and CTE when developing the class schedule, including the support class in the plan from the onset.

- *Weekly Schedule* – While there is no "one size fits all" in determining the weekly schedule, there are several factors to consider. When do the most interested and willing CTE faculty typically teach? It is often the case that the CTE faculty best-suited to the program elect to teach daytime classes. Additionally, most IET programs include a significant number of hours per week, making it a challenge to schedule all courses within an evening schedule. While an evening schedule may be possible in some cases, it is not the norm. Be mindful of any work schedules for potential students, such as those working second shift. This may, for example, inform the necessary end time each day. Try to limit the number of days required on campus, avoid lengthy break times between classes, and schedule the support class on days when the assistance will be most beneficial.

EXCEPTIONS AND MODEL FIDELITY

The IET model is designed to include program elements that have been proven to increase student success rates. As a result, it is important to stay true to the model to the greatest extent possible, ensuring any deviations are the exception versus the norm. Following are several tips related to maintaining program fidelity:

- *Commitment to Cohort Model* – There will be students who are interested in the IET program but are unable to commit to attend all classes, due to work and family obligations. While it is tempting to permit students to partially participate, this is not a recommended practice. The program is intentionally designed to accelerate and condense learning, and the cohort culture is impacted by students who come and go. If a participating student experiences an unexpected life circumstance or emergency midway through the program, it may be necessary to allow the student to pick up the missing class(es) with a subsequent cohort. However, it is not recommended to plan for this type of progression at the onset.

- *Career Navigator* – Given the expense of the IET model, some colleges eventually eliminate the career navigator position. While college advisors or counselors can be used to provide student support, the dedicated career navigator may be the single most important element contributing to student success within the IET program model. Students regularly report that having a single point of contact to simplify and

streamline enrollment procedures, financial aid and scholarship application, and other college processes was essential to their success. As adults, many IET students have never enrolled in college and may have been out of educational settings for many years. Every effort should be made to minimally retain a part-time career navigator to work solely with IET students. When this is not feasible, a college advisor or counselor should be designated to work with all IET students.

- *Overlap Time* – Colleges sometimes choose to reduce or eliminate the time spent by the basic skills instructor in the CTE classroom. Over time, if all faculty remain consistent and the curriculum does not change, it may be the case that overlap time can successfully be reduced, particularly when active team-teaching is not included in the model. However, careful coordination is still required between all faculty in terms of planning and ensuring support course content remains fully contextualized to what is being taught within the CTE classes. Should one or more of the faculty change, it will again become necessary for the faculty to overlap to the fullest extent. In cases where such a reduction in overlap time is avoidable (such as when adequate funding is available), it is recommended that the overlap time be retained, moving toward a fully collaborative and integrated CTE teaching environment.

- *Support Course Faculty* – In cases where a college has difficulty identifying a willing, available, and qualified basic skills instructor to teach within the IET program, faculty who do not have a background in adult education are sometimes hired to teach the support course. In some cases, this arrangement may be successful. In general, however, adult education faculty are particularly skilled and trained in providing basic skills instruction to underprepared adult students. Hiring a CTE content faculty member to teach the support course may result in much of the same, with discrete basic skills remaining unaddressed in favor of overall CTE content.

- *Requisite Skill Level* – As described earlier, entry requirements differ significantly by pathway and program. In every IET program area, however, there is a minimum skill set necessary in reading, math, and/or writing, and students who fall below this minimum will struggle and impact the success of the cohort. IET programs are designed for students who enter below the typical skill levels of other CTE students, but very low-level students will be set up for failure if enrolled too soon. Spend time identifying the necessary minimal basic skills required for each pathway at the time of entry, and then do not allow students below that threshold to enroll. Bridge programs can be designed to prepare these students for future success in an IET model. Placement procedures and assessments should be reviewed and refined periodically, as best placement procedures may differ between CTE programs and should be aligned with any modifications in CTE program content.

BRIDGE PROGRAMS

Despite the fact that IET programs are designed with the underprepared adult student in mind, not every student has the necessary basic skills in place to enroll. The minimal skills required per pathway differ, but students who do not meet those minimal requirements may fail if enrolled too prematurely. For these lower-level students, though the pathway to certificate completion may be longer, the journey is simply beginning at an earlier point in the road. It is unnecessary to turn students away from an IET program entirely, as pre-enrollment options can be provided to prepare them for success. Further, students who feel they are progressing to credit-bearing courses and employment may be more likely to persist and complete their High School Equivalency (HSE) or English language skills program.

According to the Illinois Community College Board (ICCB), bridge programs help adults with limited academic or English language skills enter and complete credit-bearing post-secondary education and training, leading to good jobs in high-demand fields. These programs are designed to bridge the gap, meeting students at their level and equipping them with the minimal skills necessary to enter into and succeed in postsecondary education. The ICCB defined bridge programs as those that include: 1) contextualized instruction, a blend of workplace competencies, career exploration, and basic literacy and math skills in an occupational context; 2) career development, incorporating career exploration, planning, and preparation activities; and 3) transition services, comprised of individualized supportive services for students making the transition from adult education or developmental education into CTE programs (ICCB, 2009).

Bridge programs may be comprised of a single course leading directly into credit-bearing courses or a series of courses to be completed in sequence prior to enrolling in credit-bearing courses. It is helpful to understand that multiple definitions of bridge programs exist. For example, the United States Department of Education (2012) classifies Washington's I-BEST program, an IET model, as a bridge program. However, in Illinois, students entering an IET program are not considered to be entering a bridge program, because they are not yet enrolling in college-level classes. The ICCBs bridge definition applies for the purposes of this handbook (ICCB, 2009).

Bridge programs were not originally designed to necessarily feed into IET programs. Rather, they were designed to stand alone, carrying students to the point of college entry through one or more courses and then letting go. However, if an IET program exists, feeder bridge programs are an excellent way to expedite college enrollment. Adult education students may complete a bridge course but are then able to seamlessly enroll into an IET program with a lower level of skills than would ordinarily be permitted. And, due to the enhanced academic and support services provided, they are far more likely to succeed. Bridge programs may also serve as an effective recruitment tool for IET programs, ensuring students are in the pipeline for entry in subsequent semesters.

Various resources are available to assist in the development of an adult education bridge program. The Illinois Community College Board and the Illinois Department of Commerce and Economic Opportunity developed a "How To" guide for creating a successful bridge program (www.iccb.org/iccb/wp-content/pdfs/shiftinggears/ICCB_2012BridgeGuide_ web_REV_ FEB13.pdf), and Women Employed offers numerous bridge program lesson plans at

no cost in such areas as healthcare, early childhood education, information technology, and transportation, distribution, and logistics (https://womenemployed.org/pathways-career-network). The Southern Illinois Professional Development Center (SIPDC) also offers "Bridge Basics for Developing a Bridge Program," through a series of online modules (www.siue.edu/SIPDC).

SECURING FINANCIAL ASSISTANCE

Financial concerns serve as a significant barrier to both enrollment and completion for IET students. While community colleges serve as an economical option for postsecondary education, college costs overall continue to rise, contributing to levels of student debt that have created a national problem. Since the economic downward spiral began in 2007, 42 out of 50 states have significantly reduced their higher education budgets. The reduction led, among other things, to increased tuition costs, and as costs shifted to the shoulders of students and their families, racial, ethnic, and income stratifications increased. Today, our education pipeline is more segregated than before the Civil Rights Act was passed in 1964 (Elliott & Lewis, 2015). Additionally, students and their families are frequently unfamiliar with college enrollment processes, financial aid procedures, and financing options, and this is particularly true for students in historically underrepresented groups (Roderick, Coca, & Nagaoka, 2011).

It is important to simplify, streamline, and demystify these processes in order to attract and retain IET students, many of whom are from underrepresented groups. However, at the time of this writing, it is recommended that Deferred Action for Childhood Arrivals (DACA) students

avoid financial aid application, as it may increase risk for themselves and their families in terms of deportation or other consequences.

Following are some tips and strategies designed to assist IET students in this area:

- *Career Navigator Assistance* – As described earlier, one of the more critical components of an effective IET program is the dedicated career navigator. This individual often serves as the first point of contact for IET students and is able to guide them step-by-step through all financial aid and college application processes. This eliminates the confusion caused when students are left to self-navigate, and the impact of this cannot be underestimated. Returning adult students may be intimidated by the process and are already arriving with potential insecurities and uncertainties. Provide a consistent person, whether a career navigator or a dedicated advisor, to guide IET students through barriers and services.

- *Free Application for Federal Student Aid (FAFSA)* – This form must be completed annually in order for students to determine their financial aid eligibility. Many students are confused by the requirements and application process. Whether the career navigator or a dedicated financial aid officer at your institution, identify an individual to provide one-on-one assistance with FAFSA application. Remember that students often take out far more student loan money than they require, setting them up for a lifetime of debt. Whether through your career navigator or a financial aid counselor, ensure each student receives assistance with budgeting and carefully determines the minimum amount to request. Note that students who were born in the United States to undocumented parents are eligible for financial aid but should enter a series of zeroes in the place of the Social Security Number (SSN) on the FAFSA, rather than using a Taxpayer Identification Number (TIN) or stolen SSN.

- *PELL and Ability-to-Benefit* - Not all IET students will be eligible for a federal PELL grant. In particular, if a student is lacking a high school diploma or high school equivalency, the student will only be eligible if he/she can demonstrate the ability to benefit by passing an approved test or successfully completing six credit hours toward a certificate or degree first. As such, these students may be ineligible for PELL during the first semester in the IET program but may gain eligibility by the second semester. Even more notably, these students must be enrolled in an "eligible career pathway program," which is defined as a program in which students are concurrently enrolled in adult education and eligible postsecondary programs, receive supportive services, complete structured course sequences, and benefit from acceleration opportunities. In other words, only students enrolling in an IET model are eligible to receive a PELL grant through the Ability-to-Benefit option.

- *Scholarships* – The career navigator or dedicated advisor should remain current on available scholarships for IET students. In particular, community colleges typically

have a foundation managing institutional scholarships. Ensure IET students apply for any available scholarships, large or small, and walk them through the process step-by-step to ensure follow-through.

- *Workforce Innovation and Opportunity Act (WIOA) Title I Funding* – Low-income students may be eligible for a tuition voucher and/or other forms of financial assistance, such as transportation assistance, through WIOA's Title I funding. Contact your Local Workforce Development Board or One Stop Operator to discuss eligibility requirements and approved pathway programs. When possible, arrange for on-site eligibility screening once per week or more frequently, as this is of great benefit to IET students, as well as other CTE students. Local One-Stop facilities are sometimes located far from campus, and if students arrive without all necessary paperwork in place, they will be turned away and asked to return. Bringing this service to campus can significantly impact the number of students accessing WIOA dollars. Consider dedicating an on-campus office to a Title I representative at no cost. Remember, student enrollment and completion are influenced heavily by the ability to finance an education.

- *Other Grant Programs* – While many grants received by community colleges do not directly pay for student tuition, your foundation may seek out private grants for this purpose. Additionally, local community organizations are sometimes able to provide tuition support through a grant, so these partnerships should be strengthened and maintained.

- *Tuition Waivers* – Some community colleges provide tuition waivers or incentives for IET students. For example, students graduating with their high school equivalency may be awarded a tuition waiver to pay for their first credit class at the college. Or, IET students may receive a free class in their second semester, as an incentive to remain enrolled. In other cases, states such as Washington have been able to provide IET programming at no cost to students. Work with your business/finance office to discuss possible options, demonstrating the return-on-investment to garner support. Remember, very few underprepared adults will enroll in or complete a college education independently. This program takes a population who may otherwise never enroll and turns them into tuition-generating students with a high likelihood of completion. This is a win-win in terms of revenue generation, but do your homework in advance to receive a positive response.

- *Self-Pay* – Despite best efforts, IET students may still need to finance at least a portion of their education. In this case, work with your financial aid office to explore payment options, and ensure students hit deadlines and are not dropped for non-payment. The career navigator should ensure students are able to pay not only for their first semester but for the entire program, so they do not need to stop midway. Work hours should be discussed to ensure they are realistic and in alignment with the program's structure and design. Students may be optimistic regarding their

ability to balance all things, but the IET program model is rigorous and requires a large number of hours both in the classroom and at home.

Students often need to cobble together multiple means of support to cover a college education. The IET program should be designed to simplify this process, guide students through the necessary steps, and set students up for success.

PARTNERING WITH OUTSIDE ORGANIZATIONS

In a time of diminishing resources, external partnerships are a key to success for community colleges, and this is particularly true for IET programs. Following are some ways in which external organizations can be engaged to make your IET program stronger and more economically viable.

- *Employers* – Employers are a critical resource within any IET program, providing mock or real interviews, informing the curriculum, developing apprenticeship opportunities, serving as speakers, providing tours, and sometimes supplying equipment and resources. Engage with the CTE and business outreach efforts of the college to ensure consolidation of efforts, but do not bypass this important component in program design.

- *External Adult Education Provider* – In many cases, the community college will have an adult basic skills program on campus which will serve as the adult education arm of the IET program. However, in cases where adult education resources are slim or missing from a college's offerings, it may be possible to partner with another local adult education provider in delivering an IET program. This partner may be able to provide the free support course, the team-teaching component, or even the career navigator, possibly at low or no cost to the college.

  Alternatively, an external agency may be able to recruit, organize, and support a cohort of IET students but may be unable to provide the adult education component. For example, a community college may partner with a local community-based organization (CBO) with a WIOA Title I youth grant, wherein they recruit eligible students for a welding IET program at the college. The CBO is able to provide tuition and transportation support to all enrolled students using Title I funding, removing the financial barrier. They are able to hire a career navigator to work with the students individually. The community college then provides the academic programming but is freed of the additional cost and work associated with identifying

students and providing enhanced support services. In a case such as this, consider allocating free space to the partner organization on campus, to ensure close proximity between the IET students and the career navigator.

In either case, if engaging an external organization, it will be particularly important to ensure a smooth and positive connection between the external agency and the CTE programs on campus. It is challenging to foster this integration even when both the adult education and CTE departments are on campus. With an external partner, communication challenges are enhanced.

CONCLUSION

Planning and logistical issues significantly impact the success of IET programs, and challenges in these areas may initially be underestimated. When time is invested at the onset to plan carefully and in an inclusive manner, the results can have a positive and lasting impact on student completion and success.

CHAPTER 10: SUSTAINABILITY, SCALE, AND INSTITUTIONAL SUPPORT

INTRODUCTION

The previous chapters of this guidebook provide information to assist practitioners in designing and implementing an effective IET program. However, even the most successful IET program is likely to face budgetary and other institutional challenges. The initiative must have a plan for financial sustainability and should be scaled to include a broader group of students and pathway programs over time. The culture of the institution must be adaptable and welcoming of this type of change, necessitating buy-in and support from the college, faculty, and community. This chapter will address issues of sustainability and scale, while providing suggestions for cultivating institutional and community support.

BRAIDED FUNDING STRATEGIES

According to Jobs for the Future (JFF) (n.d.), reductions in federal workforce development and educational funding over the past decade have had an enormous impact on the ability of education and training providers to serve low-income, lower-skilled, first-generation students. With limited funding available now, and in the foreseeable future, new and innovative programming can no longer be supported by a single source. Instead, initiatives must often be supported by a combination of smaller funding sources, each with its own goals, target populations, and performance indicators. According to JFF (n.d.), "…the weaving

together of various state, federal, and private funding streams, along with funding strategies, is critical to implementing integrated career pathways" (n.p.).

In Washington State, the original I-BEST program was made sustainable via a mechanism within the state's funding policy that was implemented in 2005. This policy allowed approved I-BEST programs to receive enhanced funding at 1.75 times the normal reimbursement rate per full-time equivalent (FTE) student to cover the increased costs of running I-BEST programs (Wachen, Jenkins, & Van Noy, 2010). As the IET model expanded under the Accelerating Opportunity (AO) initiative in 2011, various community colleges received grant funding to support the initial development and implementation of the program. As AO came to a close two years later, colleges have been forced to identify other funds to sustain and expand IET programming. Some colleges have been able to effectively weave together multiple funding sources to sustain the program, while others have struggled to keep the program in operation. Following are several recommendations to consider around braided funding:

- *Centralized Fund-Raising* – To secure sufficient grant funding to support an IET program, one dean or administrator cannot manage fundraising efforts alone. Instead, it is recommended that the college's grant-writer and/or foundation focus their efforts on soliciting funds for the IET program. For example, large federal grants are typically multi-year and provide sufficient funding to not only sustain but expand programming. However, these usually require lengthy grant proposals that require time and effort to prepare. Colleges are encouraged to allow the IET administrator to focus their efforts on designing and operating a successful IET program, and centralize fundraising efforts with those who are responsible for this work for the college at large.

- *Duplicative Costs* – Braided funding strategies focus on using multiple grants or other funding sources to support the same program. In the world of grant funding, however, it is important to avoid duplicative costs. For example, if one funding agency is covering compensation for the support course faculty, another funding agency should not be used to do so. Granting agencies should each be used to

support different pieces of the program, in such as a way that identical costs are not being covered in a duplicative fashion by more than one funding source.

- *Differing Funding Sources for Differing Components* – When seeking grants, it is helpful to conceptually break the IET program into separate components or initiatives. Funding agencies typically prefer to fund something new, innovative, or different. For example, isolate the cost of one specific IET pathway, including compensation for basic skills faculty, a percentage of the career navigator and administrators' salary/benefits, loaner textbooks, funds for recognition activities and field trips, and other materials and supplies. A funding agency may be interested in the opportunity to "sponsor" a specific cohort or pathway program, while another funding agency may be asked to support another. A small private foundation may like the idea of purchasing loaner textbooks for the entire program, to reduce textbook costs for students. Consider the priorities of the funding agency and carve out program costs that may interest them the most.

- *Institutional Support* – While many colleges may not be positioned to absorb the entire cost of the IET program, it is worthwhile to request that the college minimally cover a portion of the program's cost. As discussed in the upcoming section, IET programs offer a return-on-investment. If this return is successfully demonstrated, the benefits of the college investing in the program then become clear. College support may come in the form of coverage of the career navigator's salary and benefits, for example, given the fact that this position is foundational and critical to the program's success. Over time, the IET program must become sustainable and cannot remain reliant solely on grant funding. A plan for institutionalizing costs should be identified early on to ensure the stability and future success of the program.

- *Available Resources to Identify Grant Opportunities* – Various resources are available to assist the grant-writer in investigating potential funding sources for the IET program. JFF maintains a guide entitled "Connecting the Dots: A Guide to Leveraging Federal Funding Streams," that details over 120 programs in seven different federal agencies that can support cradle to career initiatives. They have also created a "Braided Funding Toolkit," as a part of the AO initiative. This toolkit provides descriptions of numerous funding sources, describes how their purpose is aligned with the goals of AO, and includes self-assessment questions linked to each funding source. These resources are available at www.jff.org.

- *Co-Locate* Services – Given the current budgetary climate, institutions are beginning to partner in the delivery of programs and services. For example, CTE courses may be offered by the college, but the support course, basic skills faculty, and/or career navigator may be provided and funded by an outside community-based organization. In this case, the community agency may be granted space on campus for service delivery. Or, to increase the number of IET students receiving WIOA Title I

support, an arrangement may be made with a Local Workforce Development Board to bring someone on campus to conduct eligibility screening. Explore such partnerships with outside organizations, and consider allocating space on campus to these partner agencies.

DEMONSTRATING EFFECTIVENESS

To secure support internally or externally, a compelling story must be told to demonstrate the impact of the IET program. In many cases, colleges invest a significant amount of time developing and running IET programs, but time and effort must also be intentionally invested in demonstrating program effectiveness. Externally, potential granting agencies, local employers, workforce development boards, chambers of commerce, and other community agencies need a simple and clear way to understand the successes of the program and what makes it unique. Internally, the board of trustees, president, administrators, support staff, and faculty all need to hear the story and develop an appreciation for the IET program. This is particularly important for the college's business and finance department, who may have concerns regarding the program's expense. By demonstrating the return-on-investment to be achieved over time, a compelling financial argument can be made for sustaining the program.

Evidence-based decision making is becoming increasingly common within community colleges, promoted by such organizations as Achieving the Dream, which was founded upon a belief in evidence-based decision making as a means of promoting student success (Mayer, Cerna, Cullinan, Fong, Rutschow, & Jenkins, 2014). Higher Learning Commission standards and performance funding expectations are increasing. Budgets are growing leaner, yet innovative programming options are on the rise, making it more critical than ever for colleges to have a means of prioritizing and identifying initiatives that work. In some instances, state agencies

governing community colleges may have a means of tracking performance outcomes for IET students, evaluating employment outcomes such as job attainment, retention, and wage earnings. However, they are unlikely to provide detailed local outcome data that are necessary for demonstrating the impact of the program at a particular institution.

To achieve this, it is recommended that the college's institutional research (IR) department be engaged as a partner to create and maintain reliable sources of outcome data. They can assist with identifying appropriate performance metrics, developing tracking mechanisms, and presenting results in a clear and compelling format. This process is most effective when focused on outcomes most critical to your institution's decision-making. IET pathways can be considered separately, or if multiple pathways exist, they may be combined, depending on the audience. It is helpful to track student outcomes by cohort, following groups of students from start to finish, and beyond, in a longitudinal fashion. Following are some examples of outcomes to be measured and graphically presented:

- Demographic data illustrating differences between the IET population and the broader CTE population, or between the IET population and the entire student body. IET student populations tend to be more diverse and are likely to have an older age demographic.
- The number/percent of students from the adult education program who go on to complete college classes and certificates/degrees outside of the IET program compared to those who enroll in the program. Here, the comparison is between adult education students enrolling in college-level courses versus IET students enrolling in college-level courses. This can be striking, as very few adult education students successfully transition to college level classes outside of the IET program. To take this further, compare success rates for their first college-level course.
- Average grade point averages for IET students in comparison to traditional CTE students in the same pathway program. The IR department can identify a fair comparison group for this purpose. Many college faculty and administrators may not believe IET students can succeed on par with other CTE students.

- Certificate or program completion rates for IET versus traditional CTE students, using the same comparison group previously mentioned. Consider how many complete within one year and within a broader timeframe, such as three years. This is one of the most compelling illustrators of impact, as the completion rates of the IET students typically far exceed those of the traditional CTE students, even though IET students generally have greater academic skill deficits at the time of enrollment. It is helpful to track both completion of the original certificate included within the IET model and subsequent certificate and degrees, following completion.

- The number and percent of students who attain employment in their chosen field either during or following program completion, including job promotions and changes. This can be challenging to track at the local level. If the IET program is small, the career navigator may be able to obtain this information via survey and student follow-up. Data-matching mechanisms may be present at the state level to assist in tracking employment outcomes, as well. Despite the fact that this is challenging to document, it is often the most persuasive and compelling data point for employers.

- The amount of revenue generated by IET students while enrolled in the program and following completion of the program. Accompany this with data illustrating that adult education students do not typically make the transition, as this is essentially an untapped source of college revenue. To be fair, be prepared to share the expense of the program. When long-term tuition revenue is included for those who persist after an IET program, the divide between expense and revenue begins to close. This revenue argument may be helpful in garnering financial support from your institution.

In addition to the list above, data related to assessment of student learning may be compiled from participating faculty and shared. Illustrating the impact of the initiative using data can lead to greater buy-in and support both internally and externally. Investing time in developing success metrics at the onset pays off in the long run.

CULTIVATING INSTITUTIONAL AND COMMUNITY SUPPORT

To cultivate institutional and community support, it is important to spread awareness and share the successes and impact of the IET program. To that end, armed with the positive

outcome data previously described, the story must be told. Following are several tips and suggestions for increasing awareness as a means of cultivating support:

- *Student Speakers* – When presenting on the IET model, invite students to speak about the impact the program has had on their lives. Combined with the data points previously discussed, this makes a compelling argument for support. Consider including student speakers within conference presentations, providing them with a unique travel and life opportunity. Do not assume students are too busy to assist in this way, as the process can be very affirming and motivating. Select an IET student to speak at college commencement or on the college's opening day of the semester, to increase awareness within the college community.

- *Invite Legislators to Campus* – Invite local legislators to visit the campus, tour facilities, meet faculty, staff, and students, and learn more about the program. These individuals can become your greatest advocate. Creating a positive and memorable experience for them can lead to future opportunities.

- *Internal and External Presentations* – Create presentations using a blend of data and story-telling, involving a mixture of members from the IET team. It is helpful to include the perspectives of students, faculty, the career navigator, and the program administrator. Discuss the purpose of the model and provide an overview of the design. Share outcome data and student stories of success, along with practical lessons learned and plans for the future. Presentations may be made in-house for the entire college or for specific groups, such as the board of trustees or foundation board. Externally, presentations can be made for community agencies, Local Workforce Development Boards, chambers of commerce, employer associations, and professional conferences. Consider including a board member as a presenter, particularly at larger national conferences. This is an excellent way to achieve high level support for the program.

In addition to awareness building, it is possible that a culture shift may be necessary within the college in order to fully embrace and institutionalize the IET program. The simple truth is that the IET model is designed for students who arrive with academic challenges, including students without a high school equivalency and those who are not yet fluent in English. For some, there is a stigma associated with these students. Some faculty may feel that all students should be fully college-ready at the time of enrollment, yet the program is designed

to allow students to enroll prior to that point. There may be concerns that the program is taking seats away from "regular" students, limiting opportunities for those who wish to enroll in the CTE program outside of the model. There may be concerns expressed by areas such as admissions, advising, testing, registration, and career services, as operational logistics within the IET model are typically different from the norm. It is helpful to integrate services with these areas, when possible, as not all IET program elements must be handled by one division. For example, the career navigator may assist a student in registering for classes within the model, but the student can still go online or to the Registration office to register, rather than having the navigator handle it independently.

According to Heath (2012), knowledge rarely leads to change. Instead, employees must see, then feel, in order to change. As such, awareness building, on its own, is insufficient. We need to bring the heart back to the workplace, with genuine and authentic leadership leading the effort. An administrative champion with such a leadership style can assist in garnering significant support for the IET program. Bragg and Kismer (2016) said that leaders must be committed to organizing and supporting individuals who help create reform to bring lasting change. Policies, programs, and practices must be restructured, requiring leaders who can help shift people from the old to the new. This culture needs to be intentionally built and nurtured with CTE faculty. This can be achieved by maintaining regular, individualized communication with faculty, sharing data and student stories, and highlighting faculty and the successes of the program publicly.

Gladwell (2000) wrote about the "tipping point" in leadership, beginning with the "Law of the Few." He emphasized the fact that one person or a small group can ignite change. This is

similar to Rick Smyre's (2016) observation that connectedness can start small and then fan out, like a web. He described the "nature of the messenger," that some people have unique attributes to foster change within an organization. These are people with rare social gifts, who are good at bringing people together. They tend to see the possibility in everyone. It is very helpful to identify such a person, or champion, for the IET model. This can be someone at a high level, such as the college president, or a passionate administrator, faculty member, or career navigator. It is important to note, however, that without strong senior-level commitment, the program is likely to struggle. Utilize the skills and attributes of this champion, and allow them space to be creative and achieve support in their own way. By employing these strategies, greater awareness, appreciation, and support can be received from a broader audience, ultimately leading to the success of the IET program and the students it serves.

CONCLUSION

This chapter presented strategic options for braided funding, accompanied by tips for demonstrating program effectiveness and achieving institutional and community support. By creating a solid fiscal strategy, performance metrics, and a dissemination plan at the onset, greater buy-in and support can be achieved from the institution and community.

CHAPTER 11: CONCLUSIONS AND IMPLICATIONS !

INTRODUCTION !

IET programs have been proven effective at improving student success outcomes for underprepared adults, helping to close the opportunity gap while providing employers with a qualified workforce. Further, the 2014 reauthorization of WIOA requires states to offer IET programs, making them increasingly prevalent nationwide. As the Baby Boomer generation retires, returning adults will become an increasingly critical part of the workforce. This is exacerbated by the fact that the population of younger workers will be too small to fill the number of positions vacated. Community colleges must develop programs and services, such as IET programs, to train this returning adult population.

Various resources have been developed to provide guidance to states and colleges seeking to design and implement IET programs, as referenced in previous chapters. However, these resources are generally written more broadly and are lacking many of the details necessary for practitioners at the ground level. This guidebook was designed to fill this gap, providing a more practical approach to program design and implementation for community college administrators embarking on the IET journey.

This final chapter will present the assumptions made in the design of the guidebook, as well as some of the acknowledged limitations community colleges may face when designing and implementing IET programs. While this guidebook serves as a solid foundation for IET

program development and implementation, recommendations for the development of additional resources and tools will also be provided.

LIMITATIONS AND ASSUMPTIONS

As mentioned in Chapter 3 (Methodology), various assumptions were made in the writing of this guidebook, although recommendations and options were often also provided for colleges not meeting these assumptions. Following are criteria that were largely assumed to be in place within the community colleges serving as the audience:

- *Committed Administration* –Top-down administrative support exists for the IET program, with an intention to sustain and expand the program over time. The guidebook is intended for use by colleges that are "all in," willing to invest the time and resources necessary to design a successful IET program.
- *Available Resources* – Even if additional planning is necessary to sustain and scale the IET program, sufficient resources are available to support the cost of initial program development and implementation. While an economical program model can be developed, it should be anticipated that there will still be some degree of additional cost.
- *Institutional Research* – The college has an Institutional Research department with the capacity and willingness to provide outcome data for the program. This is important in demonstrating program effectiveness, telling the story, and achieving institutional, employer, and community support.
- *Location and Job Market* – The college is located in an area where labor market demand is high in one or more career pathways areas, and the college offers CTE programming in these areas. Additionally, there is a sizeable population of underprepared adults seeking employment, re-training, or job advancement opportunities.

It is acknowledged that community colleges may face varied challenges that render it difficult to implement every recommended element of the IET model, as presented in this guidebook. One of these primary challenges involves limited funding. IET programs can be expensive to implement, given the additional cost associated with team-teaching, the support

course, any additional career readiness activities, and the career navigator position. Administrators may be left with difficult decisions to make regarding areas of investment. In this case, it is recommended that colleges prioritize those elements that have the highest impact on student success and, thus, return-on-investment.

Enhanced academic support is a hallmark of the IET model and should not be compromised, and time spent by both faculty within the CTE classroom must be maintained. However, while it is strongly recommended that the support course be offered as a separate and free stand-alone course, it may be necessary to eliminate the support course in favor of a fully shared and collaborative team-teaching environment within the CTE classroom, in states where this is permitted and in colleges where union contracts allow for it. The career navigator position is another essential ingredient in the IET model, but not every college may be able to sustain a full-time position. If the size of the program is manageable, it may be possible for a part-time navigator to manage the work. If the position cannot be funded at all, it may be necessary to dedicate or re-assign a college advisor for this purpose. Other career readiness activities may be leveraged from the college's career development services area, avoiding additional cost.

It is recommended to invest as fully as possible into the development of a robust program in one pathway area versus spreading money too thin in order to offer multiple IET pathway programs. Budgetary constraints are one of the primary challenges facing colleges seeking to implement an IET program, and while maintaining fidelity to the model, it is understood that various features may need to be modified to fit within the institutional budget.

The size of the institution is another factor that may serve as a challenge, particularly for smaller community colleges. First, within a smaller institution, the cost of the program represents a more sizeable portion of the overall budget. Additionally, there may be a limited number of individuals to do the work. The adult education program may be small, run by a single administrator, and class sizes may be limited within various CTE programs, making it a challenge to set aside seats specifically for IET students. If the adult education program is small, student recruitment may be challenging, as this is typically a primary recruitment source for the program. It is generally the case that out of a larger number of potentially interested students, only a very small number will ultimately be enrolled. As such, beginning with a limited pool of interested students may make it problematic to run a viable IET program. Enrollment is one of the larger challenges experienced by community colleges seeking to offer an IET program. Despite these challenges and limitations, the benefits of the IET model make it worthwhile to invest time into developing creative solutions to identified problems.

FUTURE RECOMMENDATIONS

Various changes and enhancements will assist in sustaining and expanding IET programs across the nation.

Additional Tools and Resources

First, in addition to this guidebook and other resources previously mentioned, there is a need for a compilation of sample tools and resources for purposes of practical application. Such items might include student intake forms, job descriptions for IET positions, student orientation materials and presentations, sample syllabi for CTE courses and support courses, placement

assessments, and activities and resources to be used by basic skills faculty in various pathway areas. In some states, various items have been collected from community colleges and may be available electronically via state or designated professional development agency web-sites. However, a larger, national repository would provide greater options, allowing community colleges to select resources that best meet the needs of their particular institutions.

Professional Development

Another enhancement that would benefit IET practitioners involves the provision of additional, high-quality professional development activities related to the IET model. Various online and in-person workshops do exist in such areas as team-teaching and the role of the career navigator, but additional training at the national level would be beneficial. For example, a symposium or conference focusing specifically on IET would serve as an opportunity for providers to share best practices and resources.

One perceived gap in the area of professional development relates to training for CTE faculty on contextualized instruction and strategies for serving underprepared students. Generally speaking, the IET model is founded on a belief that while the CTE faculty bring strong content knowledge to the classroom, basic skills faculty are skilled at tailoring instruction for underprepared students. If CTE faculty were able to provide this type of supplemental instruction, it would open the door for a model such as the Accelerated Learning Program (ALP) in developmental writing in CTE. In this case, the CTE instructor would be prepared to successfully teach both the CTE and support classes directly, without the assistance of a basic skills instructor, saving funds otherwise paid to the basic skills instructor for time spent in the CTE classroom. It is important for CTE faculty to develop skills in assessing the basic skill levels

of their students, enabling them to weave necessary supports into the curricula. Given the expense of the IET model and the challenges some institutions may face in sustaining and scaling it, it may be necessary to consider options such as this in the future.

State and National Studies

To garner support for IET programs and demonstrate the return-on-investment, additional studies at the state and national level are needed. These studies should account for differences between IET models, such as those that have a dedicated career navigator or offer a financial incentive, such as a tuition waiver, for participation. Guidance or models should be provided to institutional research personnel within community colleges, to ensure they are able to replicate local studies and demonstrate the impact of their IET program. Additionally, there is a need for heightened access to state, national, and local employment data, making data-sharing agreements important and combined longitudinal tracking systems critical.

State Funding

In order for IET programs to remain financially viable and sustainable, there is a need for states to identify ways to incentivize community colleges to offer them. In Washington State, a heightened credit-hour reimbursement was paid by the state for credits earned within IET programs. However, the majority of colleges nationally do not have such a financial incentive to offset the additional cost of the IET model. Just as top down support is required within a college to ensure the success of the IET program, top down funding support is required from the state to ensure colleges are able to offer IET programs.

Expansion of Target Population

Ultimately, the IET program model can benefit all students participating in CTE programs, not only those students who meet the definition of an adult education student. As such, future scaling efforts of IET programs may focus on broadening the eligible population for the IET program model. In order to achieve this, state and national policies will require revision, as IET programs must currently comply with all WIOA Title II Adult Education reporting requirements, such as pre and post-testing regularly using specified standardized assessments that are otherwise not typically used within the community college environment. In carrying this effort to scale, it will become necessary to expand beyond the boundaries of adult education, and guidance from state agencies will be necessary in this effort.

CONCLUSION

With legislation in place requiring the provision of IET programs, it is likely to be a model that will endure. As such, resources are needed to guide community college administrators and faculty, as they develop and implement IET programs. This guidebook is designed to provide such guidance from a practitioner's perspective, offering strategies and tips related to various facets of program development and implementation. With solid resources and training mechanisms in place, community colleges will be well-equipped to offer successful IET programs to underprepared adults, ensuring employers have a trained workforce and that these students find a pathway to financial stability and success.

REFERENCES !

ACT. (2014). *2014 retention/completion summary tables*. Iowa City, IA.

Alexitch, L.R. (2013). Help seeking and the role of academic advising in higher education. In S.A. Karabenick & R.S. Newman (Eds.), *Help seeking in academic settings: Goals, groups, and contexts* (pp. 175-202). New York, NY: Routledge.

Ambrose, S.A., Bridges, M.W., DiPietro, M., Lovett, M.C., & Norman, M.K. (2010). *How learning works: Seven research-based principles for smart teaching* (1st ed., Jossey-Bass higher and adult education series). San Francisco, CA: Jossey-Bass.

American Association of Community Colleges. (2012). *Reclaiming the American dream: A report from the 21st-Century Commission on the Future of Community Colleges.* Washington: DC. Retrieved from http://www.aacc.nche.edu/21stCenturyReport

Armstrong, S.L., & Stahl, N.A. (2017). Communication across the silos and borders: The culture of Reading in a community college. *Journal of College Reading and Learning, 47*(2), 99-122.

Atkinson, R.C., & Geiser, S. (2009). Reflections on a century of college admissions tests. *Educational Research, 38*(9), 665-676.

Bailey, T. (2009). Challenge and opportunity: Rethinking the role and function of developmental education in community college. *New Directions for Community Colleges* 2009(145): 11-30. Doi: 10.1002/cc.352.

Bailey, T., & Alfonso, M. (2005). *Paths to persistence: An analysis of research on program effectiveness at community colleges.* Indianapolis, IN: Lumina Foundation for Education.

Bailey, T., Jeong, D.W., & Cho, S.W. (2010). Referral, enrollment, and completion in developmental education sequences in community colleges. *Economics of Education Review*, *29*(2), 255-270.

Bailey, T.R., Jaggars, S.S. & Jenkins, D. (2015). *Redesigning America's Community Colleges.* Cambridge, Massachusetts: Harvard University Press.

Barefoot, B.O. (1992). *Helping first-year college students climb the academic ladder: Report of a national survey of freshman seminar programming in American higher education.* College of William and Mary, Williamsburg, VA.

Barefoot, B.O. (2000, January/February). The first-year experience: Are we making it any better? *About Campus*, 4, 12-18.

Barefoot, B.O. (2005). Current institutional practices in the first college year. In M.L. Upcraft, J. Gardner, B.O. Barefoot & Associates, *Challenging & supporting the first-year student* (pp. 47-63). San Francisco, CA: Jossey-Bass.

Barnett, B.G., & Muse, I.D. (1993). Cohort groups in educational administration: Promises and challenges. *Journal of School Leadership*, 3, 400-415.

Beatty, J.E. (2010). For *which* future? Exploring the implicit futures of service-learning. *International Journal of Organizational Analysis, 18,* 181-197.

Beginning Postsecondary Student Survey 2004-09 (2017). National Center for Education Statistics' PowerStats data tool. Retrieved from http://nced.ed.gov/datalab.

Bergson-Shilcock, A. (2016). Integrated Education and Training policy toolkit. *National Skills Coalition*. Washington: DC. Retrieved from https://www.nationalskillscoalition.org/resources/publications/file/Integrated-Education-and-Training-Policy-Toolkit.pdf.

Bers, T., & Younger, D. (2014). The first-year experience in community colleges. *New Directions for Institutional Research, 2013*(160), 77-93.

Bishop, G. (2006). True independent learning-an andragogical approach: Giving control to the learner over choice of material and design of the study session. *Language Learning Journal, 33,* 40-46.

Bond, D. (2013, March). *Engaging employers to support adult career pathway programs* (Issue Brief). Retrieved from www.cord.org/downloads/bond_engaging_employers.pdf

Bonet, G., & Walters, R. (2016). High impact practices: Student engagement and retention. *College Student Journal, 50*(2), 224-235.

Bourdon, C., & Carducci, R. (2002). *What works in the community colleges: A synthesis of literature on best practices.* Los Angeles, CA: UCLA Graduate School of Education.

Bowen, W.G., Chingos, M.M., & McPherson, M.S. (2009). *Crossing the finish line: Completing college at America's public universities.* Princeton, NJ: Princeton University Press.

Bowen, W.G., Chinigos, M.M., Lack, K.A., & Nygren, T.I. (2012). *Interactive learning online at public universities: Evidence from randomized trials*. New York: Ithaka S+R.

Bragg, D., & Krismer, M. (2016). Using career pathways to guide students through programs of study. *New Directions for Community College, 2016*(176), 63-72.

Braxton, J.M., Duster, M., & Pascarella, E.T. (1998). Causal modeling and path analysis: An introduction and an illustration in student attrition research. *Journal of College Student Development, 29*(3), 263-272.

Braxton, J., Hirschy, A., & McClendon, S. (2003). Understanding and reducing college student departure. *ASHE Higher Education Report, 30*(3), 140. San Francisco, CA: Jossey-Bass.

Bringle, R.G., & Hatcher, J.A. (1995). A service-learning curriculum for faculty. *Michigan Journal of Community Service Learning, 2,* 112-122. Retrieved from http://hdl.handle.net/2027/spo.3239521.0002.111

Britt, L.L. (2012). Why we use service-learning: A report outline a typology of three approaches to this form of communication pedagogy. *Communication Education, 61*, 80-88.

Carlstrom, A. (Ed.). (2013). *NACADA National Survey of Academic Advising* (Monograph No. 25). Manhattan, KS: National Academic Advising Association.

Center for Community College Student Engagement (2012). *A matter of degrees: Promising practices for community college student success (A first look).* Austin, TX: Community College Leadership Program. The University of Texas at Austin.

Chenneville, T., & Jordan, C. (2008). Impact of attendance policies on course attendance among college students. *Journal of the Scholarship of teaching and Learning, 8*(3), 29-35.

Cohen, A., Brawer, F.B., & Kisker, B. (2013). *The American community college* (Sixth ed.). San Francisco: Jossey-Bass.

The Community College of Baltimore County (n.d.). Accelerated Learning Program. Retrieved from www.alp-deved.org.

Community College Board & the Illinois Department of Commerce and Economic Opportunity. (2012). *Creating a successful bridge program: A "how to" guide.* Retrieved from www.iccb.org/iccb/wp-content/pdfs/shiftinggears/ICCB_2012BridgeGuide_web_REV_FEB13.pdf.

Complete College America. (2011). *Time is the enemy: The surprising truth about why today's college students aren't graduating…and what needs to change.* Washington, DC: Complete College America. Retrieved from https://files.eric.ed.gov/fulltext/ED536827.pdf

Complete College America. (2012). *Remediation: Higher education's bridge to nowhere.* Retrieved from http://www.completecollege.org/docts/CCA-Remediation-final.pdf

Complete College America. (2013, June). *Guided Pathways to Success: Boosting college completion*, Washington, DC. Retrieved from www.completecollege.org/docs/GPS%20BOOKLET%2006-14%20FINAL.pdf

Community College Survey of Student Engagement. (2011). *Survey of entering student engagement (SENSE), 2011.* Austin: University of Texas at Austin.

Community College Survey of Student Engagement. (2012). *Survey of entering student engagement (SENSE), 2012.* Austin: University of Texas at Austin.

Crede, M., Roch, S.G., & Kieszcynka, U.M. (2010, June). Class attendance in college: A meta-analytic review of the relationship of class attendance with grades and student characteristics. *Review of Educational Research, 80*(2), 272-295.

Crisp, G., & Taggart, A. (2013). Community college student success programs: A synthesis, critique, and research agenda. *Community College Journal of Research and Practice, 37*(2), 114-130.

Dann-Messier, B. (2010, June). *United States Department of Education Office of Vocational and Adult Education: Program memorandum FY 2010-02.* Retrieved from https://www2.ed.gov/about/offices/list/ovae/pi/AdultEd/aefla-funds-for-iet.pdf

Dean, K., & Fornaciari, C. (2014). The 21st century syllabus: Tips for putting andragogy into practice. *Journal of Management Education, 38*(5), 724-732.

Deil-Amen, R., & Rosenbaum, J.E. (2003). The social prerequisites of success: Can college structure reduce the need for social know-how? *The Annals of the American Academy of Political and Social Science, 586*, 120-143. doi: 10.1177/0002716202250216

Department of Education. (2015). *Federal Register, 80*(73), 34 CFR Parts 461, 462, 463, et al.

DePaul University Career Center (n.d.). *Entry Level Resume Guide.* Retrieved from https://resources.depaul.edu/career-center/career-advising/advisors/Documents/resume_packet.pdf

Doyle, A. (2017, June 21). Top 7 most important soft skills. *The Balance*. Retrieved from www.thebalance.com/top-soft-skills-2063721

Edgecombe, N. (2011). *Accelerating the academic achievement of students referred to developmental education* (CCRC Working Paper No. 30). New York: NY.

Edgecombe, N, Jaggars, S.S., Baker, E.D., & Bailey, T. (2013). *Acceleration through a holistic support model: An implementation and outcomes analysis of FastStart@CCD.* New York, NY: Columbia University, Teachers College, Community College Research Center.

Elliot, W., & Lewis, M. (2015). *The real college debt crisis: How student borrowing threatens financial well-being and erodes the American Dream.*

Fain, P. (2015, June 18). Finding a new compass. *Inside Higher Ed*. Retrieved from www.insidehighered.com/news/2015/06/18/act-drops-popular-compass-placement-test-acknowledging-its-predictive-limits

Feffer, M. (2016, April 1). HR's hard challenge: When employees lack soft skills. *Society for Human Resource Management*. Retrieved from www.shrm.org/hr-today/news/hr-magazine/0416/pages/hrs-hard-challenge-when-employees-lack-soft-skills.aspx

Ford, G.G., Stahl, K.J., Walker, M.E., & Ford, A.M. (June 2008). Better late than never? The relation of registration data to class performance. *College Student Journal, 42*(2), 402-407.

Furco, A. (2001). Is service-learning really better than community service: A study of high school service program outcomes. In A. Furco & S. Billig (Eds), *Service-learning: The essence of the pedagogy* (pp.23-50). Greenwich, CT: Information Age.

Gardner, J.N. Barefoot, B.O., & Swing, R.L. (2001). *Guidelines for evaluating the first-year experience (four-year college version)*, (2nd ed.). Columbia, SC: University of South Carolina, National Resource Center for the First-Year Experience and Students in Transition.

Gladwell, M. (2000). The tipping point: How little things can make a big difference. Boston: Little, Brown.

Glassdoor. (2015). *How to write an entry level cover letter*. Retrieved from https://www.glassdoor.com/blog/write-entry-level-cover-letter/

Goomas, D. (2014). The impact of supplemental instruction: Results from an urban community college. *Community College Journal of Research and Practice, 38*(12), 1-5.

Hamilton, David W. (2013). Contextualized Learning may redefine remedial education. *Community College Journal of Research and Practice, 27*(12), 1016-1020.

Hancock, T.M. (1994). Effects of mandatory attendance on student performance. *College Student Journal, 28,* 326-329.

Hansen, T.L. (1990). A positive reinforcement program for controlling student absenteeism. *College Student Journal, 24,* 307-312.

Hatch, D., & Garcia, C. (2017). Academic advising and the persistence intentions of community college students in their first weeks in college. *The Review of Higher Education, 40*(3), 353-390.

Heath, D. (2012, September 16). *Want your organization to change? Put feelings first.* [Video File]. Retrieved from https://www.youtube.com/watch?v=JhBzxy7CneM

Hebert, F.T., & Reynolds, K.C. (1998). Learning achievements of students in cohort groups. *Journal of Continuing Higher Education, 46*(3), 34-43.

Hensen, K., & Shelley, M. (2003). The impact of supplemental instruction: Results from a large, public, Midwestern university. *Journal of College Student Development, 44*(2), 250-259.

Hodara, M., & Jaggars, S.S. (2014). An examination of the impact of accelerating community college students' progression through developmental education. *Journal of Higher Education, 85*(2), 246-276.

Hollins Jr, T.N. (2009). Examining the impact of a comprehensive approach to student orientation. *Inquiry 14*(1), 15-27.

Hull, D.M. (2004). *Career Pathways: Education with a purpose.* CORD Communications. Available from: Center for Occupational Research and Development. PO Box 21689, Waco, TX 76702.

Illinois Community College Board. (2009). *Creating pathways for adult learners: A visioning document for the Illinois Adult Education and Family Literacy Program: Continuing our work to meet adult learners' needs*. Retrieved from http://www.iccb.org

Illinois Community College Board. (2017). *FY 2018 Adult Education and Literacy Competitive Request for Proposal (RFP).* Retrieved from https://www.iccb.org/iccb/wp-content/pdfs/adulted/rfp/fy2018/FY18_AEL_RFP_Memo.pdf.

Institute for a Competitive Workforce and National Pathways Network. (April 2012). *Thriving in challenging times: Connecting education to economic development through career pathways.* Retrieved from www.cordonline.net/cord-website/downloads/thriving_in_challenging_times.pdf

Jaggars, S.S., & Stacey, G.W. (2014). What we know about developmental education outcomes. Research Overview. *Community College Research Center, Teachers College, Columbia University.*

Jenkins, D. (2008). A short guide to "tipping point" analyses of community college student labor market outcomes (CCRC Research Tools No. 3). *New York, NY: Columbia University,*

Teachers College, Community College Research Center. Retrieved from CCRC website: http://ccrc.tc.columbia.edu/Publication.asp.

Jenkins, D., Speroni, C., Belfield, C., Jaggars, S.S., & Edgecombe, N. (2010. *A model for accelerating academic success of community college remedial English students: Is the Accelerated Learning Program (ALP) effective and affordable?* (CCRC Working Paper No. 21). New York, NY: Columbia University, Teachers College, Community College Research Center.

Jenkins, D., Zeidenberg, M., & Kienzl, G.S. (2009). *Educational outcomes of I-BEST, Washington State Community and Technical College System's Integrated Basic Education and Skills Training program: Findings from a multivariate analysis* (CCRC Working Paper No. 16). New York, NY: Columbia University, Teachers College, Community College Research Center.

Jobs for the Future. (2016). *Accelerating Opportunity Field Guide.* Retrieved from www.jff.org/publications/accelerating-opportunity-field-guide

Jobs for the Future and the National Council for Workforce Education. (2006). Breaking Through: The initiative after one year, fall 2005-summer 2006. Retrieved from http://www.jff.org/sites/default/files/publications/BreakingThroughatOne.pdf

Jobs for the Future. (2016). Accelerating Opportunity: Redesigning adult basic education for college success. Retrieved from http://www.jff.org/initiatives/accelerating-opportunity

Jobs for the Future. (2016). Dream conference: Paving the pathway to success for underprepared students [PowerPoint slides].

Karp, M., Hughes, K., Schuetz, P., & Barr, J. (2008). Information networks and integration: Institutional influences on experiences and persistence of beginning students. *New Directions for Community Colleges, 2008*(144), 73-82.

Karp, M.M. (2011, February). *Toward a new understanding of non-academic student support? Four mechanisms encouraging positive student outcomes in the community college* (Working Paper No. 28). New York, NY: Community College Research Center, Teachers College, Columbia University.

Kendall, J.C. (1991). Combining service and learning: An introduction for cooperative education professionals. *Journal of Cooperative Education, 27,* 9-26.

Kennington, C. (2012, May 8). 2 responses to "Jobs, workforce, education & labor markets." [Web log comment]. Retrieved from www.maryannfeldman.web.unc.edu/data-sources/jobs-workforce-education-labor-markets/

King, M.C. (1993). Academic advising, retention, and transfer. *New Directions for Community College, 1993*(82), 21-31.

Kivunja, C. (2014). Innovative Pedagogies in Higher Education to Become Effective Teachers of 21st Century Skills: Unpacking the Learning and Innovations Skills Domain of the New Learning Paradigm. *International Journal of Higher Education, 3*(4), 37-48.

Lau, P. (2014, March). Developmental education: Relevant or relic? *League for Innovation in the Community College*, *17*(3), 50-55. Retrieved from http://www.league.org/blog/post.cfm/developmental-education-relevant-or-relic

League for Innovation in the Community College. (2009). *Anticipated outcomes of the CCTI*. Retrieved from http://www.league.org/league/projects/ccti/objectives.html

Lee Jr, J. M., Edwards, K., Menson, R., & Rawls, A. (2011). The College Completion Agenda: 2011 Progress Report. *College Board Advocacy & Policy Center*.

Lerner, R.M., Brentano, C., Dowling, E.M., & Anderson, P.M. (2002). Positive youth development: Thriving as the basis of personhood and civil society. *New Directions for Youth Development, 2002*(95), 11-34.

Levin, H.M., & Koski, W.S. (1998). Administrative approaches to educational productivity. *New Directions for Higher Education,* 103, 9-21.

Levitz, R., Noel, L., & Richter, B. (1999). Strategic moves for retention success. *New Directions for Higher Education*, 108, 31-49. Retrieved from Academic Search Premier Database.

Lieberg, C.S. (2008). *Teaching your first college class: A practical guide for new faculty and graduate student instructors.* Sterling, VA: Stylus.

Lumina Foundation. (2016). *Today's Reality.* Retrieved from https://www.luminafoundation.org/todays-student-statistics

Martin, D.C., Arendale, D.A., & Associates. (1993). *Supplemental instruction: Improving first-year student success in high-risk courses* (2nd edition, Monograph series No. 7). Columbia, SC: University of South Carolina, National Resrouce Center for The Freshman Year Experience.

Mayer, A.K., Cerna, O., Cullinan, D., Fong, K., Rutschow, E.Z., & Jenkins, D. (2014). Moving ahead with institutional change: Lessons from the first round of Achieving the Dream community colleges. *MDRC*.

Mayhew, M.J., & Engberg, M.E. (2011). Promoting the development of civic responsibility: Infusing service-learning practices in first-year "success" courses. *Journal of College Student Development, 52,* 20-38.

Mayo, T. (2013). First-year course requirements and retention for community colleges. *Community College Journal of Research and Practice, 37*(10), 764-768.

Mazzeo, C., Rab, S.Y., & Alssid, J.L. (2003). *Building bridges to college and careers: Contextualized basic skills programs at community colleges*. Brooklyn, NY and San Francisco, CA: Workforce Strategy Center.

McClenney, K., (2012). *Promising practices for community college student success: A first look.* Center for Community College Student Engagement (CCSSE). Retrieved from https://wwwccsse.org/docs/Matter_of_Degrees.pdf

McCrindle, M. (2015). *Generation Z: Characteristics*. Retrieved from http://generationz.com.au/characteristics/

McJunkin, K.S. (2005). Early intervention programs to increase persistence and retention at community colleges. UCLA Community College Bibliography. *Community College Journal of Research and Practice, 29*(2), 163-167,

Metzner, B.S. (1989). Perceived quality of academic advising: The effect on freshman attrition. *American Educational Research Journal 26*(3), 422-442.

Metzner, B.S., & Bean, J.P. (1987). The estimation of a conceptual model of non-traditional undergraduate student attrition. *Research in Higher Education, 27*(1), 15-38.

Miller, J.W., Janz, J.C., & Chen, C. (2007). The retention impact of a first-year seminar on students with varying pre-college academic performance. *Journal of the First Year Experience & Students in Transition, 19*(1), 47-62.

Mortrude, J. (2017). *Integrated Education and Training: A career pathways policy & practice*. Retrieved from www.clasp.org/resources-and-publications/publication-1/Integrated-Education-and-Training-A-Career-Pathways-Policy-Practice.pdf

National Center for Public Policy and Higher Education and the Southern Regional Education Board. (2010). Beyond the rhetoric: Improving college readiness through coherent state policy.

National Reporting System for Adult Education. (2015). *NRS test benchmarks for educational functioning levels*. Retrieved from www.nrsweb.org/docs/nrstestrbenchmarks.doc

National Skills Coalition. (2012). *Analysis of Bureau of Labor statistics occupational employment statistics by state.* Retrieved from https://www.nationalskillscoalition.org/resources/publications/file/middle-skill-fact-sheets-2014/NSC-Illinois-MiddleSkillFS-2014.pdf

Oates, J. (2010, December). *United States Department of Labor Employment and Training Administration Advisory System: Training and Employment Guidance Letter No. 15-10.* Retrieved from https://wdr.doleta.gov/directives/attach/tegl15-10.pdf

OECD (2013). *Country note: Survey of adult skills first results.* Retrieved from http://www.oecd.org/skills/piaac/Country%20note%20-%20United%20States.pdf

Pascarella, E.T., & Terenzini, P.T. (2005). *How college affects students: A third decade of research.* San Francisco, CA: Jossey-Bass.

Perkins Collaborative Resource Network. (n.d.). *Mapping upward: Stackable Credentials that lead to careers.* Retrieved from http://cte.ed.gov/initiatives/community-college-stackable-credentials

Perin, D. (2004). Remediation beyond developmental education: The use of learning assistance centers to increase academic preparedness in community colleges. *Community College Journal of Research and Practice, 28*(7), 559-582.

Perin, D., Bork, R.H., Peverly, S.T., Mason, L.H., & Vaselewski, M. (2011). A contextualized intervention for community college developmental reading and writing students. CCRC Working Paper No. 38. *Community College Research Center, Columbia University.*

Prince, D., & Jenkins, D. (2005). *Building pathways to success for low-skill adult students: Lessons for community college policy and practice from a statewide longitudinal tracking study.* New York, NY: Community College Research Center, Teachers College, Columbia University.

Richlin, L. (2006). *Blueprint for learning: Constructing college courses to facilitate, assess, and document learning.* Sterling, VA: Stylus.

Roderick, M., Coca, V., & Nagaoka, J. (2011). Potholes on the road to college: High school effects in shaping urban students' participation in college application, four-year college enrollment, and college match. *Sociology of Education, 84,* 178-211.

Rosenbaum, J., Deil-Amen, R., & Person, A.E. (2006). *After admission: From college access to college success.* New York: Russell Safe Foundation.

Royce, S., & Gacka, R. (2001). *Learning for life: A longitudinal study of Pennsylvania's adult education success stories recipients*. Retrieved from www.able.state.pa.us/able/site/default.asp

Safer, A.M. (2009). The effect of late registration for college classes. *College Student Journal, 43*(4), 1380-1388.

Sass, M., & Coll, K. (2014). The effect of service learning on community college students. *Community College Journal of Research and Practice, 39*(3), 1-9.

Scott-Clayton, J. (January 2011). *The shapeless river: Does a lack of structure inhibit students' progress at community colleges?* (CCRC Working Paper No 25). New York, NY: Teachers College, Community College Research Center, Columbia University.

Shamah, D., & Ohlsen, S. (2013). Student success plan: Constructing an evidence-based student support system that promotes college completion. *Portland, OR: Gateway to College National Network.*

Shriner, K. (2014). Late registration: Continued impact on student success. *Community College Journal of Research and Practice, 38*(6), 1-4.

Singer, J. (2016). The effect of a first-year experience program on student retention in community college (p. 25). *Counselor Education Capstone*. Retrieved from http://digitalcommons.brockport.edu/edc_capstone/25

Singham, M. (2005). Moving away from the authoritarian classroom. *Change, 37*(3), 50-57.

Smith, A.B., Street, M.A., & Olivarez, A. (2002). Early, regular, and late registration and community college student success: A case study. *Community College Journal of Research and Practice, 26*(3), 261-273.

Smyre, R. (2016, Feb. 4). Interview with Rick Smyre for IDSL 830. Retrieved from https://www.youtube.com/watch?v+1uFqzSTcQ3Q&feature+youtu.be&hd+1%20

Strawn, Julie. (2011). Farther, faster: Six promising programs show how career pathway bridges help basic skills students earn credentials that matter. *Center for Law and Social Policy, Inc. (CLASP).*

Tampke, D.R. (2013). Developing, implementing, and assessing an early alert system. *Journal of College Student Retention: Research, Theory & Practice, 14*(4), 523-532.

Tinto, V. (1975). Dropouts from higher education: A theoretical synthesis of recent research. *Review of Educational Research, 45,* 89-125.

Tinto, V. (1982). Limits of theory and practice in student attrition. *Journal of Higher Education,* 53(6), 687-700.

Tinto, V. (1986). *Theories of student departure revisited*. In J.C. Smart (Ed.), Higher education: Handbook of theory and research, 2, 359-384. New York, NY: Agathon Press.

Tinto, V. (1993). *Leaving college: Rethinking the causes and cures of student attrition* (2nd ed.). Chicago; London: University of Chicago Press.

Tompkins, P. & Williams, R. (2015). At issue: A comprehensive review and synthesis of the literature on late registration. *Community College Enterprise, 21*(2), 62-75.

UC Davis Center for Poverty Research. (2015). *How does level of education relate to poverty?* Retrieved from www.poverty.ucdavis.edu/faq/how-does-level-education-relate-poverty

U.S. Census Bureau. (2015). *Current population reports P60-252*. Washington, DC: U.S. Government Printing Office.

U.S. Department of Education. (2016). *Federal Register,* 81(161). Retrieved from https://www.gpo.gov/fdsys/pkg/FR-2016-08-19/pdf/2016-16049.pdf

U.S. Department of Education. (2012). *Promoting college and career readiness: Bridge programs for low-skill adults.* Retrieved from https://www2.ed.gov/about/offices/list/ovae/pi/cclo/brief-1-bridge-programs.pdf

Upcraft, M.L., & Farnsworth, W.E. (1984). Orientation programs and activities. In M.L. Upcraft (Ed.), *New directions for student services: Orienting student to college* (pp. 27-37). San Francisco: Jossey-Bass.

Van Noy, M., Trimble, M., Jenkins, D., Barnett, E., & Wachen, J. (2016). Guided Pathways to Careers. *Community College Review, 44*(4), 263-285.

Venezia, A., & Kirst, M. (2005). Inequitable opportunities: How current education systems and policies undermine the chances for student persistence and success in college. *Educational Policy, 19*(2), 283-307.

Vick, N., Pina, R.A., Martirosyan, N.M., & Kite, V. (2015). The effectiveness of tutoring on developmental English grades. *Community College Enterprise, 42*(1), 11-26.

Visher, M.G., Weiss, M.J., Weissman, E., Rudd, T., & Wathington, H.D. (2012). *The effects of learning communities for students in developmental education: A synthesis of findings from six community colleges.* New York: National Center for Postsecondary Research.

Wachen, J., Jenkins, D., & Van Noy, M. (2010). How I-BEST works: Findings from a field study of Washington State's Integrated Basic Education and Skills Training Program. *Community College Research Center.* Retrieved from https://ccrc.tc.columbia.edu/media/k2/attachments/how-i-best-works-findings.pdf

Wahlstrom, C.M. (1993). Genessee Community College. In B.O. Barefoot (Ed.), *Exploring the evidence: Reporting outcomes of freshman seminars* (pp. 15-16). Columbia: National Resource Center for The Freshman Year Experience, University of South Carolina.

Warford, L.J. (Ed.). (2006). *Pathways to student success: Case studies from the College and Career Transitions Initiative.* Phoenix, AZ: League for Innovation in the Community College. Retrieved from http://www.league.org/league/projects/ccti/files/CCTI_Pathway_Book.pdf

Warford, L.J. (2009). Reinventing career pathways and continuing education. In Myran, G. (Ed.), *Reinventing the open door: Transformational strategies for community colleges* (pp. 123-128). Washington, DC: Community College Press.

Watkins, M. (2010). The 6 R's of service-learning. Nazareth College Rochester, NY.

Widmar, G. (1994). Supplemental instruction: From small beginnings to a national program. *Supplemental Instruction: Increasing Achievement and Retention, 60*, 3-10.

Willingham, D.T. (2009). *Why don't students like school?* San Francisco, CA: Jossey-Bass.

Wurtz, K.A. (2015). Impact of learning assistance center utilization on success. *Journal of Developmental Education, 38*(3), 2-4.

Young, D.G., & Hopp, J.M. (2014). *2012-2013 National Survey of First-Year Seminars: Exploring high-impact practices in the first college year* (Research Report No. 4). Columbia, SC: University of South Carolina, National Resource Center for The First-Year Experience & Students in Transition.

Young, D., & Keup, J. (2016). Using hybridization and specialization to enhance the first-year experience in community colleges: A national picture of high-impact practices in first-year seminars. *New Directions for Community Colleges, 2016*(175), 57-69.