NYS P-TECH

Public-Private Partnerships
for College and Career Success

READY FOR COLLEGE SUCCESS

Robin Willner, Director
May 2019

OVERVIEW

As the U.S economy continues to evolve, public education must develop new approaches to ensure that students, particularly those from disadvantaged communities and first-generation college-goers, are prepared to be the highly-skilled critical thinkers and problem-solvers that our 21st century workforce requires. For individuals and communities to succeed, it is essential to increase the number of adults with a quality post-secondary credential -- an industry-recognized Associate degree. In response to this challenge, New York State has adopted the innovative P-TECH 9-14 model, redesigning secondary and post-secondary education while engaging local employers and communities for student success.

Each NYS P-TECH school brings together three essential partners: K-12 education, higher education, and employers. The model offers an integrated six-year program, combining high school, college, and career training for disadvantaged students who are provided the opportunity to graduate with a high school diploma and an Associate degree (at no cost to the student or their family) and to be first in line for a job with participating businesses. The school design - drawn from research-based effective practices - offers a rigorous academic curriculum, targeted technical training, comprehensive work-based learning, and individualized support services and pathways for students. While focusing on each student's pathway to success, the model also creates a robust talent pipeline to support local economic development and growth and community support of public schools.

As the model matures and scales, the enormity of the task comes into full relief. At a time when fully half of the traditional students in the State University of New York's community college system are consigned to remedial or developmental education and fewer than 30% of students complete an Associate's Degree in three years, NYS P-TECH's goal of ensuring that all students, regardless of prior academic preparation, are able to complete their first college credential within two years of traditional high school graduation is beyond ambitious. The P-TECH 9-14 model incorporates the most effective practices from early college programs, high quality career and technical education, and project-based learning initiatives along with community college reforms. Traditionally, efforts to improve high school graduation rates don't necessarily translate into college-preparedness. P-TECH partners and members of school planning and steering committees face a myriad of challenges as this new approach meets traditional operating procedures and assumptions of not one, but two major institutions – K-12 education and high education.

Designing a six-year, 9-14 program goes well-beyond a simple assignment of each required course to a given semester to produce an enhanced pathway. High school and college partners must develop new approaches to collaboration as they redesign secondary and post-secondary education into a seamless offering. At the same time, they are re-examining the concept of "college-ready", deepening their understanding of the academic and social and emotional maturity students must master for success. P-TECH 9-14 partners have come to understand that college is not just a place, a destination. In fact, "knowing how to college" is a complex set of

skills and behaviors that P-TECH students must have the opportunity to explore, practice, and eventually excel.

This guide was prepared to assist planning teams, in particular high school and college faculty, as they develop their career pathways, instruction, and student support services to focus on college completion. A priority is to identify approaches that will support disadvantaged students (the target population for NYS P-TECH) and those who, but for P-TECH, would not be able to achieve post-secondary success. For these students, who may enter 9th grade without adequate academic preparation and students with special educational needs, P-TECH partners have a particular challenge to ensure they are prepared for college success. Chapter I describes the rationale for creating the P-TECH 9-14 model along with the research and experience that provides the basis for this innovative approach. Chapter II discusses the criteria for assessing students' college readiness to ensure their successful participation in college coursework and ability to complete the target degree pathway. Chapter III provides guidance for high school and college faculty to design and operate a comprehensive program that will support student success.

The P-TECH 9-14 model emphasizes collaboration among the 3 major stakeholders – K-12 education, higher education, and local employers. However, each sector brings their specific expertise and carry primary responsibilities. While local employers are critical to developing the skills map that will frame the entire academic program and are the leaders for work-based learning, the focus of this guide – ensuring that students succeed in college coursework and complete their degrees – is primarily the purview of the high school and college faculty. Additional materials, case studies, and resources will be developed as the schools mature and more is learned about how best to support students as they move from high school to college courses. For more guidance on employer engagement and participation, see the *NYS P-TECH Work-Based Learning Toolkit* and the *NYS P-TECH Employer Engagement Quick Guide*. These resources were also developed by the NYS P-TECH Leadership Council, along with *A Policy Brief for State Leaders*, and the curated library of resources for algebra faculty to support the growing NYS P-TECH initiative.

This guide documents the creative approaches and never-flagging commitment of the partners and faculty of NYS P-TECH schools. Their experience and generosity assure that the statewide network of schools continues to improve and flourish. Particular thanks are due to the school leaders, principals, college liaisons, and P-TECH champions who devote every day to their students, bringing creativity, experience, good humor, and the best examples of grit. They are responsible for nurturing the P-TECH 9-14 model as it evolves to meet our goals. Special acknowledgement to Sophia Feiertag, researcher and editor without peer.

Table of Contents

Chapter I – Introducing the P-TECH 9-14 Model

Chapter I: Synopsis

Chapter I highlights the origins of the P-TECH 9-14 model. The various sections present the program's rationale, benefits for all participating partners, the research base behind the structure, and the unique Six Year Integrated Scope and Sequence that defines the program.

1. THE P-TECH 9-14 MODEL

In the 21st century, a high school diploma is no longer a credible passport into the world of work. Without post-secondary education, young people do not have the earning potential to sustain a middle class life style. Even as labor market expectations grow for young adults to complete post-secondary education, the academic challenges remain daunting for many students, particularly those from disadvantaged communities and first-generation college goers. In addition to the difficulties faced by individual young adults who are unprepared for college or career, their communities lack the local talent pipeline to sustain and grow the local economy. The P-TECH 9-14 model was developed to address these two intertwined problems by bringing together K-12 education, higher education and employers to offer an integrated six-year program. Students complete a high school diploma, an industry-recognized/cost-free AA/AAS degree, and relevant work experience. The seamless program delivers the rigorous academic, technical, and professional skills that employers seek in a qualified workforce for their middle jobs. The number of good middle-skills jobs for those with associate degrees, had increased 83% from 1991, to nearly 16 million in 2016, and has been projected to continue to grow. (Carnevale 2018)

This model builds on the experience and learning from two major reform efforts: early college high schools and high-quality career and technical education (CTE). In both cases, research has identified the power of these approaches to improve student success, thus providing a strong foundation for this new model. However, the P-TECH 9-14 model includes a number of distinct attributes that differentiate it from previous models and offer students additional preparation and opportunities.

The early college model demonstrated the power of college coursework to motivate students and provide them with the skills and experience to navigate college successfully. The P-TECH 9-14 model also offers high school students the opportunity to take credit-bearing college courses, beginning no later than 10th grade. In addition to early college models, other reform initiatives have led to advances. For students enrolling in a two-year college in 2010, after six years, though 39.3% of students have completed a degree or certificate, over 44% have dropped out and less than 16% continue to persist. (Shapiro 2016) In New York State, the average graduation rate at public community colleges after three years has increased to 28.7% in the most recent data for the 2014 cohort. The national average is 24.9%. However, much more improvement is necessary. (SUNY 2019)

In order to address these various challenges, the P-TECH 9-14 model enhances the early college model in three essential ways:

1. **The P-TECH 9-14 model focuses on completing the first college credential**, providing the time and structure for most students to complete an AA or AAS degree that is recognized by industry and cost-free to the student. P-TECH also offers comprehensive six-year integrated courses of study, delivering a complete degree pathway rather than a selection of college courses. This requires that students remain on the high school register for up to 6 years, rather than the traditional 4-year program.
2. **The P-TECH 9-14 model focuses on a specific industry and designated set of middle jobs**, which provides a clear focus for the scope and sequence in terms of academic and technical skills. Skills mapping is the first step for planning backwards for the Six Year Integrated Scope and Sequence (see Appendix) and establishes the priorities for academic, technical, and professional skills and helps to assess which courses will be included, enhanced, or revised. The process also engages local employers and community leaders with a public school that will develop a local talent pipeline.

3. **The P-TECH 9-14 model includes a comprehensive work-based learning component** to deliver on the promise to students and employers that graduates will be able to step into a good-paying middle job. In addition to the most effective practices of quality Career and Technical Education programs, students experience the full continuum of work-based learning, from career mentors to internships. Professional Skills are given the same focus and attention as academic and technical skills throughout. Thus, P-TECH graduates have the full range of experience and skills for career success in addition to college completion. (See Appendix for *Professional Skills*).

a. On Partnerships

Additionally, the P-TECH 9-14 model is founded in partnerships and collaboration. Each school has a tri-partite steering committee that brings together K-12 education, higher education, and employer partners to identify local opportunities for middle jobs, conduct skills mapping to profile a successful entry level employee, plan backwards from the skills map to create the Six Year Integrated Scope and Sequence (SYISS) and consider school design, policies, and operations with the benefit of the input from all participants. This active steering committee, undergirded by formal memoranda of agreement, is not only a design team, but continues to support the school, address new challenges, recruit faculty, students and new employer partners, champion the program, and engage the local community. The steering committee is a unique program element that ensures fidelity to the model and provides a vehicle for continuous improvement.

As a result of the cross-sector partnerships, the model is able to provide a unique set of benefits and value to the 3 key partners – colleges, school districts, and employers.

For colleges, the P-TECH 9-14 model provides:
- A steady flow of college-ready students to maintain enrollment in targeted departments;
- Students with additional support provided through the high school partners who are focused on completing an Associate degree;
- An increase in graduation statistics and student outcomes;
- Access to local businesses providing current data on industry trends and local labor force needs to maintain the quality of technical courses and degree pathways;
- Engagement with local employers to create opportunities for applied learning and improve job placement rates for all graduates; and
- Visibility and support within the local community of students, parents, and businesses.

For school districts, the P-TECH 9-14 model provides:
- New options for students who are not succeeding in a traditional instructional setting;
- College and career opportunities to motivate students;
- An increase in high school graduation and college enrollment statistics and student outcomes;
- Access to college faculty to understand their expectations for students and refine curriculum to align to college-level student learning outcomes and expectations;
- Access to local employers to understand the expectations for Professional Skills;
- Engagement with local businesses to develop work-based learning and internship opportunities; and
- Opportunities for local employers and leaders to meet students as productive, creative members of the community.

For employers, the P-TECH 9-14 model provides:
- Opportunities to ensure that the local talent pipeline is prepared for available jobs;
- Access to local education and community leaders;
- New perspectives for problem-solving from young adults;
- Access to views and ideas of next generation employees and customers;
- Opportunities for current employees to gain new skills (mentoring, supervision, presentation, etc.);
- Visibility among parents, residents, and community leaders;
- Pathways to improve employee retention; and
- A long-term labor force to sustain and grow local economic development.

Thus, the P-TECH 9-14 model has developed a structure and core set of program elements, based on the growing need to address the skills gap for young adults and local communities and leveraging evidence-based models to produce further innovations. The following sections introduce P-TECH's distinctive course of study and Six Year Integrated Scope and Sequence.

2. THE P-TECH 9-14 COURSE OF STUDY

Within the partnership model and given these specific goals and benefits, P-TECH 9-14 schools require a distinct structure to the course of study.

Recognizing the hurdles for disadvantaged students the P-TECH 9-14 model integrates a number of research-based components to support students toward completing their first college credential.

- **Opportunities for students to begin taking college courses no later than 10th grade**. For many students, especially first-generation college-goers, post-secondary education is simply not part of their reality. As a result, the abstract opportunity to attend college offers no motivation to do well in high school and students place no priority on the activities required to enroll in college. Early exposure to college coursework is motivating and builds skills and confidence for students. This is a key to the SYISS, which includes the opportunity for students to take college courses no later than 10th grade. Initial college courses must be carefully selected to ensure that students have the requisite skills for success. A Freshman Seminar or College Success course that helps traditional students begin their college careers may be particularly well-suited. The goal is not to rush students through a course of study without adequate preparation, but to help them progress at a pace that is motivating and moves them towards their academic and career goals.

- **College remediation and developmental education are replaced with more effective preparation.** For students who enroll in college, particularly community colleges, the next hurdle is Developmental Education. Too often, students deemed unprepared for college-level coursework are assigned to non-credit-bearing remedial courses or Developmental Education. These courses absorb time and financial resources and, for many students, become a frustrating dead end. For example, in New York, half of first-time community college students are taking a remedial course, at an annual cost of $94 million, while as a group, their graduation rate declines to only two-thirds the average, which is already below 30% even after 4 years. (Bringsjord 2014) These costs – both the time and money lost to students forced to take remediation -- are avoided with the NYS P-TECH model, since students only take credit-bearing courses. In order to meet this goal, college and high school faculty must collaborate, leveraging the most effective college approaches and reconsidering initial high school coursework. A NYS P-TECH school may redesign high school coursework with input from college faculty on priority skills and content, design and offer new transition and co-requisite courses, and review and improve the criteria for placing students in gateway courses (see Chapter II Section 5. **Assessing Student Readiness**).

- **The industry focus and work-based learning opportunities offer motivation and hands-on approaches.** For some students, applied learning is the most effective instructional approach. Several states have designed programs that integrate academic skills into career and technical courses rather than placing students into Developmental Education. These courses help students to understand the relevance and application of the required academic skills. The P-TECH model infuses work-based learning into each semester and leverages industry examples into every academic course beginning in 9th grade. This approach is specifically designed to help students hone their academic skills during the program's early years and thus avoid the need for later remediation. For many students with special needs, this approach may be particularly effective.

- **The P-TECH 9-14 Six Year Integrated Scope & Sequence offers a Guided Pathway (SYISS).** Research has uncovered a disturbing trend as students persevere in college and earn credits but fail to complete –or even make headway towards – a degree. Sometimes students fail to understand the degree requirements. Sometimes they delay choosing a major or switch majors. Sometimes, scheduling makes it impossible for students to complete pre-requisites and required course at the appropriate time, either because a course is not offered every semester or the timing conflicts with students' work or family care obligations. Guided Pathway programs are showing promise as they direct students through an optimum route to their degrees. The Six Year Integrated Scope and Sequence is an excellent example of a Guided Pathway for students. In addition, close consultation and coordination among high school and college partners ensures that all courses are given at times consistent with student schedules.

The barriers to college completion are complex and varied; no one model will be effective for all students. The P-TECH 9-14 model draws lessons and effective practices from the latest innovations in the field to provide a comprehensive approach to improve student success. The model is crystalized in the Six Year Integrated Scope and Sequence, described in Section 3.

3. THE SIX YEAR INTEGRATED SCOPE & SEQUENCE (SYISS)

Every P-TECH 9-14 school is designed by planning backwards from the skills map created in conjunction with partner employers for each targeted career. This skills map drives the school design through the Six Year Integrated Scope and Sequence (SYISS). The SYISS is akin to a human skeleton – it provides the shape for the entire program, ensures that there is mobility and agility in the structure, and bears the weight of the school's ambitions. Critical to this foundational design is the commitment to every student that they will be able to complete a high school diploma, an industry-recognized Associate degree and master necessary Professional Skills. And the SYISS must provide opportunities for individualization, as no group of incoming 9th graders will proceed in lockstep given their varied preparation, challenges, and ambitions. Meeting these distinct yet intertwined requirements within the SYISS presents challenges for the initial design and later iterations as the program evolves and responds to student needs and industry trends.

To begin, there are three fundamental characteristics of the SYISS:
- Students remain on the high school register throughout the six years of the program. This allows for the necessary support students need to complete their degree pathways. It also clarifies accountability. The additional support and oversight provided by high school faculty should be a factor in considering student placement. Without compromising academic rigor, college partners may explore new criteria and/or practices for student placement that will improve the college experience and success for all students.

- The SYISS, based on a current Skills Map, must be responsive to local employers as well as developments in a given industry. Given the focus on STEM careers in rapidly evolving industries like advanced manufacturing, IT and computer services, health and sustainable technologies, it is important that career pathways and degree pathways also evolve to remain current with industry standards.

- The SYISS leverages the opportunity for dual enrollment/dual credit courses – college courses that will meet both high school and college credit requirements. This is the key mechanism for introducing students to rigorous college programming as early as possible and for offering a seamless course of study. Dual credit courses allow students to advance further in their chosen field, completing more rigorous courses and having the time for work-based learning and internships as well. The SYISS must be carefully designed to ensure that courses meet the requirements for high school credit (e.g. seat time, teacher certification, etc.) as well as the college pre-requisites and eligibility requirements.

Developing an effective SYISS requires collaboration among all partners and openness to consider new approaches. The P-TECH 9-14 model requires innovation at every stage. Experience has identified a number of ways to improve the process and the resulting product:
- *Engage all partners from day one:* This must be a collaborative exercise, making sure to discuss all expectations, assumptions, and traditional approaches before proceeding. Leverage everyone's experience and expertise.

- *Begin with Skills Mapping and then plan backwards:* Remember that the goal is to prepare students to be successful in the targeted middle job – which may be different from the

requirements to complete the designated degree pathway. Make sure that the full range of academic, technical, and professional skills are included.

- *Identify the registered degree pathway that is the best fit:* The Skills Map will generally point towards an existing degree pathway. It is possible that the existing pathway requires changes to meet the current industry standards and trends. Business partners can provide valuable insight into the critical success factors for new employees and any shortcomings in the current local talent pipeline. Whether the SYISS is based on a current, amended, or new degree pathway, confirm that it is officially registered so that students will be eligible for their Associate degree.

- *Confirm that all High School Diploma requirements are met:* Students will likely proceed at different rates, some accelerating and some requiring more time to master specific skills, as is the case with any program. Ensure that there is a clear pathway for students to be able to complete all high school diploma requirements by the end of Year 4.

- *Design a 6-year program, not 4+2 or 2+2+2, with room for individualization:* This is an "integrated scope and sequence", not just a smooth transition from 4 years of high school to 2 years of college. Dual credit courses are a key mechanism for merging the coursework into a single scope and sequence. Faculty collaboration to align course content (discussed above) will also drive the integration. While the SYISS will provide one core 6-year pathway, individual students may accelerate or require additional times in various subjects. However, the goal is success, not speed, and the SYISS must carefully consider the pre-requisites students need to complete a given course. There will need to be flexibility for individual pathways as well.

- *Introduce college courses no later than 10th grade:* In order to confirm that the SYISS is fully-integrated and provides the motivation of early college experiences, students should have the opportunity to take the first college course in 9th or 10th grade. In order to be motivating, these initial college courses must be carefully selected to be within the students' capacity. The first course is also an opportunity to begin to orient students to the college experience and will likely be a Freshman Seminar or College Success course offered to traditional students. Other options include courses that introduce students to a particular industry or field of study, an introduction to research, or communications, as students learn to navigate the rigor of college expectations, scheduling, and instruction.

- *Focus on completing the Associate Degree:* NYS employer partners as well as other companies regularly report that an Associate degree is more valuable and more widely-recognized than additional designations for a high school diploma. It is the Associate degree that conveys the status – and earnings – of a college graduate. High school diploma requirements for Advanced or CTE Designations have much less currency in the labor market. Additional high school courses that are not required for graduation or as pre-requisites for the college degree pathway are not the best use of valuable instructional time.

- *Provide a full continuum of work-based learning:* P-TECH is about the power of 3. There are 3 core partners, representing K-12, higher education, and business, and 3 domains for skills mastery, academic, technical, and professional. In addition to infusing professional skills into all academic courses, provide explicit time for work-based learning activities like job shadowing and internships.

- *Include only credit-bearing college courses:* NYS P-TECH only pays tuition for credit-bearing courses. High school instruction and support must be provided to ensure that students are prepared to succeed in college coursework. Chapter II provides further discussion of this challenge.

- *Require a maximum of 64 credits for the degree:* This is the standard for the time and cost of an Associate degree. If students are required to take additional courses, they should be on the path towards a more advanced degree. This is policy for the State University of New York, and good practice everywhere.

- *Review the SYISS annually with input from all partners:* Continuous improvement is a hallmark of any successful initiative. The first iteration of the SYISS will be produced before students enter the program and the complete faculty is identified. Some innovations will support student success, others may falter. Students and faculty may bring strengths and challenges that were not predicted but must be addressed. There will always be some students who accelerate and those who will need additional support. The SYISS serves as the core pathway, but students will take different routes. Sometimes individualization will produce new ideas that will influence the full SYISS, sometimes only a couple of students will pursue that path. Be willing to change whenever something goes awry. Also, the 21st century workplace is fast changing, and industry standards evolve regularly. The skills map and the SYISS should be reviewed, enhanced, and validated each year.

A robust, flexible SYISS is the structural basis for the P-TECH 9-14 model. The SYISS assumes that students will move seamlessly from high school classes through dual credit courses and then on to college coursework. The gatekeepers are the criteria for determining whether students are ready to participate successfully in a given college course. How to navigate this process is a critical topic for partners to address. Chapter II discusses the criteria for determining student readiness, including from both academic mastery and social and emotional maturity. Chapter III offers guidance on how partners can collaborate to design and operate a six-year program that will ensure students are well-prepared.

Chapter II – Integrating High School and College

Chapter II: Synopsis

The P-TECH 9-14 model has a unique focus on college-readiness and the goal for students to complete their first industry-recognized college credential. As a result, the Six Year Integrated Scope and Sequence redesigns the secondary and post-secondary academic program in a new model. This requires significant collaboration among high school and college faculty to consider course alignment, pre-requisites, student placement, and a full range of instructional and operational issues. Each local P-TECH 9-14 program must merge two, and potentially many more, institutions with distinct regulatory structures and legacy programs. This chapter discusses the challenges and effective approaches to create robust partnerships to meet this challenge. The chapter also reviews the most critical aspect of integrating high school and college programming: the criteria and process for determining student readiness for college coursework considering both academic mastery and social and emotional maturity.

4. HIGH SCHOOL/COLLEGE COLLABORATION

The terms "collaboration" and "partnership" appear throughout this guide, highlighting an approach to planning, problem-solving, and decision-making that is inherent to the P-TECH 9-14 model. However, collaboration is not a simple set of steps or activities and does not occur spontaneously. It requires time and commitment along with a willingness to listen to other perspectives and reconsider established practices. Bringing together the three partners (K-12 education, higher education, and business) in the interest of students is a powerful tool. But it also means bringing together 3 complex institutions, each with its own legacy, traditions, operating environment, and interests. In particular, secondary and post-secondary partnerships must overcome barriers that have grown over decades.

This must be part of building an effective High School/College Collaboration for each P-TECH 9-14 school. It's not easy work, but it usually boils down to a few steps highlighted in the Leadership, Conversation, Professional Development, and Research sections within this chapter.
Investing time and resources to building a robust collaboration among partners, extending deeply into the faculty with the full support of the leadership, is essential for effective program design and implementation. More important, it is the best foundation for addressing challenges and barriers to success as they arise. Beyond collaboration, there are several concrete reforms that partners can implement in the P-TECH 9-14 model. These are described in the Assessing Student Readiness and Success and the P-TECH Innovates sections.

a. Leadership

Every successful implementation of the P-TECH 9-14 model begins with clear commitment and direction from the leadership at each partner. Planning will quickly founder without an explicit statement of priority to implement the new model with fidelity and local innovation. Leadership at the partner school district(s) and college must articulate the value of the P-TECH 9-14 model to each institution as well as to the incoming students as well as a willingness to adapt current practice. This requires active engagement, at least at the Steering Committee level, at the highest level.

Collaboration is not simply assembling the partners who then proceed in tandem while still operating with their standard practices. Collaboration requires each partner to respond to the others and engage in developing something new that is greater than the sum of the parts. This will likely mean attempting new approaches for P-TECH students as an exception or on a waiver/pilot basis initially. It may result in new practices and procedures for the broader institution. For example, reviewing the sequencing of course or requirements for P-TECH students may lead to a broader review of a degree pathway based on the Skills Map. Or a waiver for individual P-TECH students to enter a credit-bearing course based on specific criteria may lead to a reconsideration of placement policies and procedures after review.

Leaders at each partner are responsible for motivating and energizing faculty to commit the time and energy to planning the new program. The budget for the P-TECH 9-14 model must allocate funds for faculty to meet, participate in professional development and curriculum development, and undertake action research for continuous improvement (see *Research*) This requires that leaders articulate the value proposition of the model for all participants (See **The P-TECH Model**). One of the most effective approaches for any leader to initiate a successful collaboration is to focus participants on the considerable advantages to be gained through the P-TECH 9-14 model.

b. Conversation

Leadership is only the beginning. Across NYS P-TECH schools, regardless of school, industry, region, or experience, the primary advice is the same: keep talking. Or as one partner explained, "conversation, conversation, conversation". Time is the most valuable resource in education and often the scarcest, but partners must meet regularly, according to a schedule, with explicit follow-up assignments. All participants must be prepared to listen and consider alternatives. This does not mean that decisions aren't made until everyone is 100% satisfied. It does mean that everyone will understand the context and rationale behind every decision. And even if something is not one partner's preference, it is still acceptable. It is important for partners to ask for the reasoning behind any requirement. This is not meant to be impertinent, but to understand whether this is an opportunity to adapt, revise, or even test a different approach. Sometimes, understanding the rationale can allay the opposition or generate an alternative that meets the same goal.

c. Professional Development

Faculty will forge collaborative bonds and improve their decision-making when they have an opportunity to learn together. This can take a variety of formats:
- **Inter-visitation** between institutions. College faculty gain insights into their future students when they observe high school classes and instruction; high school faculty can better prepare students after observing college courses. Such visits are for gathering information and understanding, not evaluation. The result is better-aligned instruction.
- **Joint professional development** on a content area or instructional approach. One NYS P-TECH school recently conducted joint professional development on project-based learning to expose college faculty to the methods favored by the high school teachers and to consider the relevance and application to college courses. Schools also bring both college and high school faculty together with businesses to learn about new industry trends that will impact instruction.
- **Cross-faculty curriculum development** for transition and introductory courses. Several schools have hosted cross-faculty sessions to develop new high school courses that align directly with a gateway college course, e.g. Anatomy & Physiology for health careers or Pre-calculus for advanced manufacturing. These sessions provide an opportunity for faculty to unpack the college course, identify exactly the skills and experiences students need in order to participate successfully, and highlight any gaps in the current high school course. Working collaboratively, they can develop new modules, revise current courses, or rebalance the time devoted to various topics in order to ensure students are ready.

d. Research

Another vehicle to strengthen collaboration and develop more effective practices is for cross-faculty teams to engage in continuous improvement. For example, bringing faculty together to examine student data to understand exactly which assignments and content presented the most difficulty and which students struggled. This can lead to refinements in both the high school preparation and the

college instruction. Such data analysis can also help to distinguish students who will succeed in the college course and those who are not yet qualified, potentially identifying new measures of student readiness. (See **Assessing Student Readiness and Success**)

Cross-faculty teams may also research potential programs and effective practices from other schools and create models that can be modified and adapted to P-TECH. Most often, there are promising initiatives within the larger college and school districts that offer relevant guidance. Clearly, this type of research and collaboration requires time and resources, but the potential return measured in terms of improved working environment and student outcomes is well worth it.

The collaboration of partners throughout each element of the program will be instrumental to the success of P-TECH 9-14 students. There will be continuous opportunities for collaboration as P-TECH schools evolve and cohorts move through the program; each opportunity will not just allow for, but require, time, focus, and communication from the partners to make P-TECH its best. The tools outlined in Leadership, Conversation, Professional Development, and Research support and guide partners through effective collaboration.

5. ASSESSING STUDENT READINESS AND SUCCESS

Ideally, students who complete the high school coursework in a given subject should be deemed ready to take the first credit-bearing college course in the sequence. Unfortunately, due to differences in course content and varying perspectives on the definition of mastery, students are caught in a system that is not fully-aligned as they move from high school to college. Data has shown that more than half of traditional students in a State University of NY community college place into at least one remedial or Developmental Education course. (Bringsjord 2014) In other states, the figures rise even higher. Though not unique to the P-TECH 9-14 model, given the focus on early introduction of college coursework, the issue becomes more acute in these schools.

Addressing these misalignments requires a new understanding of college-readiness. The innovations of the P-TECH 9-14 model demand a common definition of the criteria and how these factors will be addressed, a process that can only be conducted through robust collaborations across secondary and post-secondary education. Traditionally, students have had to navigate the lack of alignment between systems and the resulting barriers for college completion. With the P-TECH 9-14 model, the local partners are responsible for developing a shared definition of college-readiness and an agreed-upon process for assessing and supporting students to meet the goal. This section provides the necessary background to understand the traditional placement criteria for academic proficiency, why they are no longer appropriate, and some of the alternatives in both placement and curriculum educators have begun using. Section 6 reviews the role of social and emotional maturity in college-readiness and Chapter III, sections 7-10, offer guidance to improve alignment across curricula and instruction and provide the additional support services required for student success.

5. ASSESSING STUDENT READINESS AND SUCCESS
a. Measuring Preparedness and Placement: Context & Challenges

Community Colleges have developed the practice of administering placement tests for students to determine whether they can move directly into credit-bearing courses. These tests were originally developed for applicants who had completed high school years earlier or in another state or country, so there was not a reliable high school transcript for placement decisions. However, as concerns grew over whether recent high school graduates were adequately prepared for college-level coursework, placement tests, primarily the Accuplacer developed by the College Board, became a widespread requirement for incoming students. Community colleges and even departments within colleges differ in their policies regarding the tests that are offered, which students must take the tests and what cut-off scores will be required.

A particular placement test is not necessarily an accurate assessment of student's readiness for either college coursework generally or specific college courses. While it is certainly not advantageous to place students into courses before they have the necessary skills and habits of mind for success, there is a growing body of evidence showing that the placement tests are not well-aligned with college coursework and are not the best predictors of college success.

Emerging data highlights the potential for misalignment using a singular source for course placement.
- Research using data for tens of thousands of students at two large community college systems found that math placement test scores explained only 13% of the variation in college level math grades and English tests explained less than 2%. Under-placements are far more common than over-placements, the data suggesting that 25-33% of students assigned to remedial classes could have passed the credit-bearing course with a B or better. (Belfield 2012)

Using multiple measures, such as taking into account students' grade point average and course taking history in high school, offer better insight into student preparedness.
- The Center for Assessment of Post-Secondary Readiness in New York City is conducting a random assignment study of the use of multiple measure placement systems at seven SUNY community colleges. Preliminary results indicate that one third to one half of students were estimated to have been "misplaced" in math and English course at colleges using a single placement exam. The early findings showed positive and statistically significant impact on student enrollment and completion in credit-bearing courses as a result of the use of multiple measures to determine college-readiness. (Barnett 2018)
- Numerous individual community colleges (Long Beach Community College, Davidson County Community College, Ivy Tech Community College, Community Colleges in Maryland and D.C. to name a few) started using transcript information alone or in conjunction with test scores to increase the number of students eligible for credit-bearing course with no decline in subsequent student pass rates. (Long Beach Community College 2014)
- A consortium of national organizations issued Core Principles for Transforming Remediation within a Comprehensive Student Success Strategy. In order to increase the proportion of adults with quality post-secondary education, they advocate:
  > Principle 2 : Enrollment in college-level math and English courses or course sequences aligned with the student's program of study is the default placement for the vast majority of students…This shift is crucial given that recent research shows that many more students can succeed in college-level gateway courses than have historically been placed into them. Completion of credit-bearing work—with appropriate support—is key to equity. Students do better when they are engaged in work that counts toward a degree or credential in their academic or career area of interest… (November 2015). (Achieving the Dream et al 2015)

This and related data have proven convincing enough that the California State University System moved to eliminate the use of placement tests in 2017 and a number of other systems are undertaking similar reviews.

5. ASSESSING STUDENT READINESS AND SUCCESS

b. Measuring Preparedness and Placement: Alternative Structures

There are a number of initiatives underway around the nation to provide alternatives to Remedial or Developmental Ed College Courses. For example:

- Co-Requisites:
  - Colleges have found success providing necessary support through a co-requisite model instead of standalone Developmental Education classes. In this approach, students who are not fully-prepared might be assigned additional hours of class time, mentors, tutoring, or labs concurrent with and focused on the material in the credit-bearing class. (Complete College America 2015)
  - Data from Indiana, Tennessee, and West Virginia show dramatic gains using co-requisites. In June 2017, Texas enacted legislations to replace Developmental Education courses statewide with the co-requisite model, assuring that students continue to earn college credits. (Complete College America 2019)
- Elongated Courses:
  - A section of the class might be stretched over two semesters to include focused support in conjunction with the credit-bearing material.
- Parallel Coursework:
  - Students might be assigned to both a Developmental Education and a credit-bearing course ideally taught by the same instructor.

Rather than focus on preparing students to pass the placement test, high school faculty need to concentrate on preparing students with the skills and experience to succeed in the target college course. This requires collaboration and consultation with college faculty along with a change in perspective and sometimes policy. In P-TECH models (ideally spreading further), student readiness will not be dictated by a singular test. Especially in New York, where students must pass the high school course AND take a Regents Exam in the subject, there are alternatives available as evidence to determine student placement.

Moving Forward

As universities and colleges continue to evaluate the best measurement systems for placement, P-TECH must do similar investigations internally. If the P-TECH school is working in conjunction with the SUNY system in pilots where alternative placement indicators are being evaluated, relevant data should be used to make assessments. If the P-TECH school is not currently involved in the pilot program, it is imperative there is further collaboration between High School and College faculty in creating measurement standards for college placements.

6. IMPORTANCE OF SOCIAL AND EMOTIONAL MATURITY TO P-TECH STUDENTS

The P-TECH 9-14 Model was created to redefine secondary education to help ensure students are successful in both post-secondary education and in finding meaningful and lasting employment. In addition to highly researched academic structure and work-based learning programs, the P-TECH 9-14 model aims to prepare students holistically for real world success. This section describes the personal traits, group experience, and problem-solving skills that characterize the mature P-TECH student who is fully prepared for success in both the academic and workplace spheres. After providing a fuller description of the college-ready students, these materials highlight occasions to foster Social and Emotional Learning (SEL/SEM) and outline effective SEL programs to promote success for enrolled students.

CASEL (the Collaborative for Academic, Social, and Emotional Learning) defines SEL as the "process through which children, youth, and adults acquire and effectively apply the knowledge, attitudes, and skills necessary to understand and manage emotions, set and achieve positive goals, feel and show empathy for others, establish and maintain positive relationships, and make responsible decisions." (NYSED 2018) These are all skills, behaviors, and traits that are important within the P-TECH 9-14 model. SEL helps students acclimate to a variety of environments and changing circumstance even after their post-secondary education or Associates Degrees are complete. However, social and emotional maturity is not only fundamental in college and career readiness, research has proven it is required throughout the learning process as well. In a paper from the Aspen Institute, a neuroscientist is quoted saying "It is neurobiologically impossible to build memories, engage complex thoughts, or make meaningful decisions without emotion." (Johnson 2017) With social and emotional maturity as vital to holistic success as they are, it is integral that the P-TECH 9-14 model integrates effective SEL programs within its structure. This guide notes the ever-changing nature of such cutting-edge research while compiling relevant programs and developments for SEL.

Working closely with employer partners, key themes or skills that contribute to professional success have been identified for NYS P-TECH students (See *Work-Based Learning Toolkit*). Twelve Professional Skills emerged and are best understood under three themes; Personal Traits, Group Experience, and Problem Solving. To find more on Professional Skills, see the "Work-Based Learning Toolkit" guide. Throughout the creation of this guide, interviews and research were conducted with both high school and college faculty who work with P-TECH students and it has been found that many of these Professional Skills are also fundamental for College Readiness and future success. When thinking of college and academic success, not all 12 of the Professional Skills are equally salient. The following sections focus on the skills that were continuously mentioned as cornerstones of success.

6. IMPORTANCE OF SOCIAL AND EMOTIONAL MATURITY TO P-TECH STUDENTS

a. Personal Traits

P-TECH students must show determination and grit as they persevere through life's challenges. Students will prove to teachers, employers, and themselves that they can be dependable through being conscientious, responsible, receptive, confident, goal-focused and mature.

- **Dependability or Meeting Expectations:** When high school and college faculty consider the challenges students face upon entering a college environment, a wide range of issues are raised -- academic preparedness, social and emotional maturity, personal integrity, professional attitude. The one issue that always surfaces is both simple to explain and difficult for students to accept: college faculty will expect students to complete all of their assignments on time and be prepared for each class activity; deadlines matter; do-overs and waivers are rare; students need to show up and step up. Sometimes the issue is framed as one of responsibility and self-confidence. But often, this is just a case of adapting to new rules and realizing that the rules will be enforced.

  Examples of this issue abound. At one school, a college professor was dismayed that students repeatedly arrived at class without completing assigned reading and floundered. After discussion, the students revealed that high school faculty had regularly spent the first 10 minutes of a class period reviewing the homework and most students had come to rely on that process. Simply explaining that college courses had much more information to cover and that all reading had to be done in advance changed the students' trajectory through the course. Similarly, students often assume that deadlines will be extended, that there will be opportunities to make-up quizzes and tests, and that assignments need not be submitted as long as they pass the final exam. Students are also not prepared for the faster pace of a one semester course and how one lapse or one distracted week can impact the final grade.

  The best way to ensure that students have a successful transition is to establish a college environment in high school courses. While many of the students who are in P-TECH's target population will need additional support and time to develop the necessary sense of responsibility, high school faculty can balance compassion and understanding with clear expectations. During the first 3 years of the 6-year program, faculty can gradually raise the bar and prepare students for the time when they will be on the college campus. NYS P-TECH provides support and monitoring that isn't available to traditional community college students, but they must learn to accept responsibility for their own performance. As they learn to manage their path through the Six Year Scope and Sequence, they are also preparing to enter the workforce where the Professional Skills of dependability, persistence, and maturity are priorities and there is likely zero tolerance for lapses.

- **Persistence:** College liaisons regularly reference that students who get an A on their first assignment will assume they have everything under control and then their focus and attention drops along with their grades. OR high-performing students get so thrown when they have the first low grade and have trouble re-building. None of this is unique to P-TECH of course.

Grit isn't just a buzz word that has been circulating among education circles across the country. The majority of faculty interviewed during this project labeled grit and resilience as one of the main indicators of college readiness and college success. They stated that the P-TECH students that show the most grit and persistence and the ones with the most success in college. One school leader from the Southern Tier even went so far as to say, "Resiliency is the number one thing for college success." Transitioning from high school to college is challenging for any student, and it's the ability to persevere through those challenges that will lead to a successful student.

"Part of grit is being self-motivated", a college partner for a NYS P-TECH in the Capital Region, says. Many interviewees believed that resiliency is intrinsically tied to self-motivation, and it is those students that have their eyes set on completion are the students with the most persistence. It is these students that are willing to put in the work. A college liaison at a private community college in Buffalo explained, "at some point, we're letting go of the safety net." Without this safety net of all of the support that comes with high school, the motivation to persevere and succeed must come from within the students.

Indeed, self-motivation and self-advocacy have emerged as critical aspects of Social and Emotional Maturity. As P-TECH partnerships have matured, each school has identified a wide range of services, staff, and opportunities at the partner college. The key is for students to have the confidence and skills to follow-up, access the services, and take full advantage of the resources available to address any challenges. A related issue is the need for students, particularly first-generation college goers to have the confidence that they belong on campus and have the right to services and support. Particularly for students who are in 11th or 12th grade, the sense of being an "imposter" may constrain their ability to self-advocate and seize opportunities. It's essential for faculty to address these feelings as students make the transition on to campus and encourage their sense of belonging and empowerment. The P-TECH 9-14 model has a range of incentives and experiences to help students gain the maturity and Professional Skills that will serve them well as they navigate the work place and the college campus.

Personal Traits ladder back to nearly every interpretation of success for students and employees. While Integrity and Responsiveness were not highlighted here, they are, along with Persistence and Dependability, vital characteristics of successful students. Mastering the elements falling under Personal Traits will help P-TECH students develop as efficient, hard-working, and confident potential employees and college-goers.

6. IMPORTANCE OF SOCIAL AND EMOTIONAL MATURITY TO P-TECH STUDENTS
b. Group Experience & Problem Solving

Group Experience
      Interpersonal skills, like teamwork and communication will differentiate P-TECH students in the workforce.

- **Communication:** Vital across all aspects of life, communication skills are also readily linked to college readiness. P-TECH faculty stated that successful college students are not only able to communicate with their peers, but they are also able to effectively communicate with professors and college faculty. Several P-TECH interviewees stated that being able to approach and communicate with college professors is an essential skill for college success. As opposed to high school teachers who "offer a safety net of support", most college professors do not proactively offer extra support. It falls on the students to approach and communicate with these professors, and students who are able to effectively self-advocate are the ones who have greater success in college.

Other professional skills of Group Experience, such as negotiation, are still holistically important but are not as critical to Social and Emotional Maturity.

Problem Solving
      P-TECH students graduating from the program will need to be their own best advocates as well as their own best managers. They will need to be prepared, timely, and flexible critical thinkers. As their social and emotional skills ladder together, students will own their performance and be able to manage tasks from all arenas of life. A graduate will prepare, and plan effectively, apply knowledge, and take initiative.

- **Planning**: P-TECH staff almost unanimously stress the importance of time management. A telling quote from a college partner from the Mohawk Valley, "first and foremost is time management", illustrates the importance with which these school leaders and college liaisons view time management. They all stressed that students need to be able to effectively organize their time if they want to be successful. There is more independent work in college than in high school and being able to work outside of the classroom is necessary. Further, students need to be able to schedule time to work for different classes simultaneously. Success in time management is integrally linked with college readiness and college success.

- **Applied Knowledge & Continuous Improvement**: As students proceed, they will become increasingly responsible for decision making and it will be critical to success that they are skilled in applying existing knowledge. College ready students will know how to select and apply appropriate technologies or resources to complete tasks and advance towards goals. A college liaison from New York City stated that it is "not about being able to memorize everything, it is about thinking critically and applying what you learned." P-TECH students must know how to address a variety of situations and be prepared to think critically to find available to solutions to obstacles as they arise.

Problem solving skills are used across life experiences, and P-TECH graduates will have had ample practice honing and developing the tools learned during their 9-14 experiences. Working towards any sort of goal will require both Planning and Applied Knowledge, but also additional Problem-Solving skills like Flexibility. P-TECH graduates will have all these tools at their disposal as they move forward and succeed.

6. IMPORTANCE OF SOCIAL AND EMOTIONAL MATURITY TO P-TECH STUDENTS

c. The College Ready Student

Based on these aspects of social and emotional maturity, the following is a narrative summary for a profile of a hypothetical college ready student. This profile represents the mature and well-prepared students the P-TECH 9-14 model works to help shape. Molly, the subject of this profile, would have been a P-TECH student for the past five years of her education, and is now in her final year of the program, taking exclusively college courses now. Throughout the narrative, there are call-outs to the non-cognitive skills and maturity needed for post-secondary success.

<u>A College Ready Student</u>

Molly wakes up Tuesday morning with plenty of time to complete all of her tasks before her first class. In addition to the normal routine of workout, shower, and breakfast, Molly sends out a reminder to her writing study group that their meeting is at 7:30 tonight. *(Communication, Teamwork)* On the way to math, her first class of the day, she looks over her current grades on her college's portal system. She notices she slipped a little bit in psychology and sets a reminder on her phone to reach out to her professor. *(Persistence, Continuous Improvement)* That reminder is updated and recorded in her planner, the holy text of Molly's college career. *(Planning)*

Growing up, Molly had always heard from everyone that time management is one of the keys to college. Always one to question, she wondered, how hard could it be? She believed that there would be so much free time, and she would only have class for a few hours a day. While last year, her P-TECH liaison was still checking in, now in her final year of the program, she is managing her schedule more independently, using the tools she had learned throughout the program. She never thought she'd use the planner her mom gave her as a college present, however, she soon realized that her planner was going to be the key to her college success. Not only did she have multiple classes to prepare for, there was no longer a safety net that there was in high school. Her teachers weren't there to double check on her every assignment, making sure she got them in on time, and they especially did not allow nearly as many extensions. Adhering to deadlines was all on her, and she had to have the self-motivation to schedule and complete all of her assignments in a timely manner. *(Dependability, Planning)* Further, Molly found that having all of that "free time" was a slippery slope, as she could easily just hang out with friends during that time. Utilizing the schedule of her planner kept her focused on her work and the tasks at hand. *(Integrity)*

In math that morning, her professor had the class split up into groups to solve a complex problem. As a P-TECH student, Molly was excited to use her critical thinking skills to solve this problem. She assessed the members of her group and began facilitating a group process that she believed would be most resourceful in solving this complex problem. After taking a second to analyze the problem, she remembered how she encountered a similar problem from a different subject. While the content was different, she was able to apply the same method of solution. *(Continuous Improvement, Applied Knowledge)* She shared that information with her group, and they were able to successfully solve the problem in an efficient manner.

After math class, she went to her psychology professor's office hours. Psychology has been a struggle for Molly all semester, yet she was resilient and determined to get a good grade in the class. *(Persistence)* She has been approaching her professor all semester, communicating her desire to succeed and willingness to do anything it would take. *(Responsiveness)* Throughout college, Molly has demonstrated a high level of self-advocacy, which has helped her become a successful student. She quickly realized that in college it was her responsibility to advocate for her grades and has been resourceful in receiving feedback from professors in order to be an effective student. *(Communication, Continuous Improvement)*

Molly's day continues according to schedule. She has lunch with friends, followed with a scheduled 30-minute break. She uses this time to relax, as she also understands the importance of taking breaks and not burning herself out. When she first started college, these breaks served as a daily reminder to be optimistic, and that positive mindset has really helped her during her college career. *(Applied Knowledge)* She then heads to her geology class which she loves because she loves the hands-on approach to geology. Molly didn't realize she had an interest in geology until this year, and the only reason she tried it was because she believed she had the ability to learn and succeed. *(Continuous Improvement)* Now that she's in, she's very grateful that she had that learner's mindset.

She concludes her day on campus with dinner and her writing study group, which she enjoys leading. As Molly goes home from a successful day on campus, she takes a moment to reflect. She truly feels like this is where she belongs, and she loves being a part of this campus. There is a feeling she has that she can't quite describe, but it makes her feel warm and gives her a sense of self on this campus. Molly is extremely glad she has this feeling, and she can't quite explain why, but she believes that it is a main reason for the success she has had in college.

Chapter III – Innovating for P-TECH 9-14

Chapter III: Synopsis

The P-TECH 9-14 model incorporates a number of components to improve students' skills and knowledge and also to guide them effectively through a scope and sequence to college completion. There are a number of effective practices that NYS P-TECH school leaders and partners are refining to improve student success. These practices provide new approaches for every aspect of the program, including measures of student readiness, instructional program, the transition to college, and support services. Examples and additional guidance are detailed in this section.

7. ASSESSING THE CHALLENGES

Individual NYS P-TECH schools have undertaken a range of new initiatives to develop and implement meaningful academic placement criteria to determine student readiness for success in college coursework. Reconsidering the measures used for placement decisions will provide more valid data and improve the opportunities for students to take and pass credit-bearing college courses. Focusing on the necessary skills rather than preparing for any specific test will also improve student success. However, there will be students who are not immediately ready for college-level work and will require additional time to prepare. These students are still more likely to succeed if they continue to progress toward their degree and career goals while receiving additional support rather than being stalled in remedial courses. The P-TECH 9-14 model provides a unique opportunity to provide the necessary additional support, since accountability remains clearly with the high school to monitor student progress and continue to offer support services. This does not in any way mean that standards are lowered for P-TECH students or that they are pushed ahead to frustration and failure. It does mean that policies and practices are refined with regard to data on student progress, documentation of program alignment and available services.

The key to effective assessment and placement decisions is collaboration, including joint study and curriculum design. A few simple guidelines will help ensure effective partnerships:

- **Convene cross-faculty teams** to identify the specific skills required for success in the gateway college course. This may include opportunities for faculty to observe/audit courses at the partner institution. Clarify expectations with faculty that they participate in cross-faculty planning, curriculum and professional development.

- **Delineate both academic skills and social/emotional skills** that are required. Distinguish between those skills students need to have already mastered and those where previous exposure and familiarity with the terminology and approach is necessary in order to advance.

- **Clarify expectations** and define the path forward.

- **Establish a strategy** for how best to strengthen academic skills and social/emotional skills in turn.

- **Identify relevant measures of readiness**, emphasizing high school course grades, once there is consensus with confidence that the targeted course includes all necessary content, skills, and experiences.

- **Review student data** to ensure that students are successful in gateway and subsequent courses. Practice continuous improvement and make adjustments as necessary.

Clear and efficient communication and strategy across all P-TECH faculty will be critical for student success. Faculty should be adaptive and receptive to new solutions and a variety of occasions for development. This includes traditional professional development opportunities as well as collaborative discussions.

Guidelines for Collaboration

- Convene college and high school faculty to review P-TECH 9-14 model and the goals and design of NYS P-TECH.
- Develop common language for Professional Skills and Social & Emotional Maturity.
- Focus on moving forward, no finger-pointing.
- Invite faculty from all partners to all professional development.

Optimizing Faculty Engagement

- Ensure that all faculty have a solid understanding of the P-TECH 9-14 model, the target population, and the degree pathway including pre-requisites.
- Share student outcome data with college faculty along with testimonials from faculty that have already had P-TECH students in their courses.
- Consider the attributes of college faculty likely to be most effective with this population.
- Organize opportunities for high school faculty to visit the college campus, for college faculty to visit the high school, and for all faculty to attend worksite tours.
- Schedule opportunities for faculty to observe courses at the partner institution.
  - Can high school faculty audit a college course or view a live-stream?
  - Can college faculty observe students at the high school? Ensure that college faculty have the opportunity to observe project-based learning activities and other methods of student engagement as practiced at the high school and offer high school faculty opportunities to explore their content areas at the college.

Once faculty are working in full partnership, they will identify the critical challenges and opportunities to enhance current programming and develop alternatives.

8. TRANSFORMING THE HIGH SCHOOL EXPERIENCE

The typical High School experience has never been universally efficient, particularly for P-TECH's target student demographic. The traditional 9-12 school duration has already been remodeled within the scope and sequence program, but it is also vital to remodel the structure, approach, and environment to create a cohesive pathway to success. There are a variety of new techniques and programs emerging to reinvigorate the high school experience, including new methods of teaching and earlier introduction to college norms.

This section brings into focus both well-established and new techniques and programs that have shown success in readying students for success by making changes to their high school structure. Adapting and enriching existing teaching structures for lasting and efficient success is covered in the section *Enhanced Instruction. College Environment and Expectations* highlights general best practices for cultivating college readiness by establishing college level norms earlier throughout the high school experience. Together, these sections offer guidance for an integrated experience that will prepare students for more durable success.

8. TRANSFORMING THE HIGH SCHOOL EXPERIENCE
a. Enhanced Instruction

Without a doubt, the most effective means to make sure students are ready for college coursework is to strengthen and redesign high school coursework to focus on student mastery of the critical academic, social and emotional skills. This should not be misinterpreted as shifting college level work down to high school classes. The goal is to ensure students have the time and the support to gain the foundational skills and habits of mind along with an understanding of the general subject so that can successfully participate in college coursework.

There are a number of alternatives available to ensure that students are receiving instruction in all of the necessary academic and technical skills with sufficient time for mastery. For example, the following options can be considered:

- **Flexibility:** Can the current high school curriculum be adapted? Are there any specific academic pre-cursors that need to be covered? Is there basic vocabulary and background on the industry or career focus that can be included?

- **Pre-Semester:** If the issues are limited in scope, can the high school program offer a module in the summer or in January between college semesters to focus on specific skills? Or perhaps provide refresher materials to for each student to review and independent study activities to complete during the summer or January break to prepare for the course? If more preparation is required, conduct a "boot camp" to prepare students for a challenging course prior to the spring semester can set them up for success.

- **Collaboration:** If the issues are broader, can a transitional course that provides high school credit be designed and offered? Can introductory college course materials and texts be integrated into a high school course?

- **Flexible scheduling to provide additional time for mastery:** Is a co-requisite model possible, offering additional time for students who need focused attention above and beyond the class time for the credit-bearing course? Options include:
  - Stretching a course over a full year,
  - Providing additional class time each week,
  - IF placement tests are required, early opportunities to take the test,
  - Identifying tutors or student mentors,
  - Scheduling additional time with high school staff to review material.

- **Emulation:** Are there other models already in place at the partner college that can offer approaches to enhance the high school courses?

- **Cross-Subject Application:** Can specific academic skills be incorporated into another class (e.g. expand the writing requirements in US or Global History or even math; focus on specific math skills in a technical class)?

- **Reformulation:** In New York State, as in many other states, high school courses are designed to prepare students for required end-of-course assessments with a heavy emphasis on content rather than problem-solving and other skills. Developing a transitional course as either an elective or a required subject that has no statewide final assessment allows for use of Project Based Learning, more interdisciplinary activities that leverage the school's industry focus, and more student-directed and student-managed projects to develop students' independence, time management skills, and responsibility. For example, a degree pathway may require a familiarity with geometry, but not the full year of content in the traditional course. Developing a new P-TECH geometry course can still provide a required math credit though without the statewide assessment (e.g. Regents), substituting preparation for the high school math exam with a year of problem-solving and application and open-ended assignments.

Likewise, there are a range of promising practices to strengthen social/emotional skills. Options to consider include:

- **Introduction:** Can there be a special seminar to introduce students to the college experience? Existing offerings such as College Success courses or Freshman Seminars should be included within the P-TECH scope and sequence. An introduction course would cover topics such as college vocabulary (syllabus, office hours, etc.), expectations for submitting assignments, participating in class, mastering content not covered in lectures, time management, etc.

- **Incorporation:** Can these skills be integrated into existing high school courses to mirror the college environment?

- **Sampling:** Can additional college-exposure activities provide opportunities to develop the necessary skills?
  - Near-peer mentors or tutors from the college;
  - Participation in clubs and extracurricular activities at the college; or
  - Research activities that require college facilities and observation of college activities

- **Feedback:** Can the designated counselor/liaison engage with college faculty on a regular basis to identify issues and challenges?

There are a range of opportunities and activities that high school and college faculty can undertake to assuage concerns about readiness. As discussed earlier, many of these are built into the P-TECH 9-14 design and others have already been referenced from other perspectives. As students move from preparation to college coursework, there are numerous occasions and programs to ensure that students will be successful. Consider the following promising practices in the areas of professional development, setting expectations, and support services.

8. TRANSFORMING THE HIGH SCHOOL EXPERIENCE
b. College Environment and Expectations

A key component to the uniqueness of the P-TECH 9-14 model is the focus on the pathway as a six-year model, not a "4-year high school to 2-year college" program. Because of this specific integrated scope and sequence structure, it is vital that expectations, standards, and environment are introduced and consistent throughout the program. Introducing college norms from the start will help P-TECH students acclimate and develop the necessary skills to success. (Barnett 2016)

Setting College Standards for Students
- Ensure that all faculty set common expectations for students beginning in 9th grade. One way to avoid the abrupt transition to the demands of college is to introduce these requirements into the high school environment gradually over the first 3 years of the program. Convene high school and college faculty to identify baseline expectations for attendance, student work, classroom participation, etc., and develop a rubric for students to increase their self-management and monitoring of their academic progress.
  - Maintain clear expectations regarding homework, assignment deadlines, participation, etc.
  - Clarify that students are responsible for learning material in homework and assigned reading, not just what is discussed in class
  - Highlight "active listening" and note-takings skills
  - Encourage class discussion and model how to offer productive comments and criticisms and effective ways to ask questions
  - Include Professional Skills and Attitudes in the rubric and grading for all projects and activities. Standards-based grading can be very effective.

- Design opportunities for students to visit campus, use college facilities for school purpose.

- Provide opportunities for students to engage with near-peers in clubs and extracurricular activities and as mentors or tutors.

- Introduce students to all online systems (both instructional and administrative) as early as possible so they can access information, monitor their own progress, and begin to take responsibility for their educational experience.

- Make the connection for students between Professional Skills and success in college courses; relate their career aspirations to college success. Continue to engage employer partners to underscore the relevance and importance of the college curriculum for career advancement.

Introducing Expectations to Parents and Families
- Consistent messaging on expectations to parents and students. What does it mean to be in college *already* starting in 9th grade? What is the student's responsibility in return for the opportunity offered by P-TECH?

- Enlist parents as partners, explaining the unique expectations and benefits of the P-TECH 9-14 model and the distinct aspects of the college environment. Invite parents to accompany their

children to special activities on the campus. Maintain contact with families throughout the program, even while students are on campus.

Creating a College Environment
- Conduct a major event for "College Signing Day" when students enroll in their degree pathway and first on campus course. This can be an opportunity to reward students, engage parents, and review students' path forward, responsibilities and opportunities for the remaining years. It will also connect them directly with the campus.

- Develop a handbook on college – including long term benefits, short term opportunities, responsibilities, expectations – that is distributed to all students and parents during Summer Bridge and every semester thereafter.

- Identify college practices that can be adopted at the high school to ease transition, e.g. using a common lab report format for science courses, adopting vocabulary from higher education (e.g. syllabus, office hours, etc.), and introducing common standards for written work.

- Whenever possible, create labs that mirror the college environment and provide students with the opportunity to complete actual experiments and hands-on activities for science, engineering, technology courses.

- Use on-line courses as a transitional experience. (See *Online Courses* Section.) Students can be scheduled for a regular class period to take the course as a cohort with a faculty member available to answer questions and monitor participation. This offers students college credit in a sheltered environment as they learn time management and have a view of the college experience.

- Invite college faculty as speakers, offer a seminar on the college experience.

- Consider a workplace challenge to address a problem at the college. Bringing together college and high school faculty to identify a topic for students to address will meet a range of goals. Faculty will have an opportunity to collaborate, students will have an assignment that requires learning about the college and exploring various services, college faculty will have direct observation of students' skills and maturity as they present their proposals, and students will begin to take responsibility for their college education. Challenges (depending on the career pathway) might include designing and outfitting a meeting place/study center for P-TECH students on campus; developing an app for students to monitor their progress, receive alerts, or find and access support services; or designing an enhanced workflow process for in person registration or program signup.

The P-TECH 9-14 model is adaptable and agile; each program has room to make adjustments, further integrate family supports, and integrate college norms, to continue to transform the standard High School Experience. Providing consistent expectations, standards, and instructional environment across high school and college will help P-TECH students prepare for success.

9. EASING THE TRANSITION

As P-TECH students move through the scope and sequence, their time immersed in the college partner atmosphere will increase. It is important for faculty to initially help students to acclimate so that they are prepared for the gradual independence that follows.

Easing the Transition highlights opportunities to finesse existing programs so they are even better suited for P-TECH student success. The section on *Online Courses* details effective practices for P-TECH 9-14 faculty to guide students from start to finish through this new education structure. Programs, logistics, practices, and more are covered in *Support for Students on Campus*, for those students who will be fully immersed in the college space. It is vital to student success that the High School-to-College sequence is a smooth transition.

9. EASING THE TRANSITION
a. Online College Courses for NYS P-TECH

Online courses present a particular opportunity for NYS P-TECH pathways along with some unique challenges. As students begin their exposure to and participation in college courses, an online course can offer an excellent introduction to challenging academic work and expectations within a sheltered environment at the high school. There are also multiple logistical benefits, since students do not have to travel to the college campus and the course can be conducted at any time that works for the high school schedule. However, an online course can actually be more daunting for the students and presume a level of social and emotional maturity, e.g., time management skills, personal initiative, etc., that they do not yet possess. With the proper support, this challenge can become a learning opportunity for students to hone their professional skills and college readiness in the online environment.

The following guidance is based on the experience from the first group of NYS P-TECH schools. As the program continues, these effective practices will be refined, and other recommendations will emerge.

Before the Course:
- Partnership is Key. Faculty collaboration ahead of the course will be integral for student success.
  - The online course is best delivered in a hybrid model that includes both the college and high school faculty. As with many aspects of the academic program for an integrated scope and sequence, faculty must meet in advance to review the course content and establish expectations for participating students in advance along with regular communication during the course to identify any issues.
- Schedule the Time. The online class should have its own designated timetable.
  - This is not an independent study course. Students should be scheduled for a regular time and classroom with the necessary equipment and access.
- Clarify Expectations.
  - Students AND their parents should understand the structure and requirements for an online course.
- Test all Technology. Ensure there are no physical or technical barriers for the student before the course begins.
  - Make sure that students and high school faculty have access to all relevant technology in advance. This includes the instructional platform AND any other online systems that provide information, updates, and tools for students and their teachers to monitor progress and flag problems. Schedule time for students to access their log-ins, create passwords, and practice. Make sure there are no technology glitches before the semester begins. Also, provide opportunities for students to practice posting, learning chat group protocols, etc.
- Identify Additional Resources.
  - Students can create how-to videos as an IT/Workplace challenge. A media specialist might develop a set of ancillary resources. Older students can be peer-tutors or provide help-desk support.

During the Course:

- Collaborative Staffing. Both college and high school faculty will be needed during the course's scheduled time.
    - In addition to the college faculty offering the online course, there should be a high school staff member available during the scheduled time to provide support, answer questions, monitor participation, etc. Depending on the school, pathway, course and whether high school credit is offered, the high school faculty may have a different official role. The high school staff may be a teacher with adjunct status to offer the college course, a licensed teacher in the subject area who is not an adjunct, or a guidance or support staff member.
- Meet in Person.
    - Arrange an opportunity for students to meet the college faculty at least once as part of a course orientation and, if possible, several times throughout the semester.
- Never Assume. Take time to address all of the details.
    - NYS P-TECH students can master anything as long as they receive appropriate instruction and opportunity. Regardless of how much time a student spends with a Smartphone and texting in group chats, this is no indication of their facility with other software or their comfort in an online academic environment.
- The Goldilocks Balance. Find the right amount of support for each student.
    - NYS P-TECH students need additional support for online courses, but not so much support that they fail to take control of their own learning. Students should not feel stranded in a complex new environment without direction, but they also need to move towards a feeling of empowerment to direct their own learning. As with so much else at NYS P-TECH, staff must find the right balance – not too much support and not too little, but just the right amount. And of course, this varies by student, so it's always a challenge.

After the Course:

- Provide Feedback. Survey students for their comments and offer constructive input to faculty.
    - Finally, sometimes the problem is with the online course itself. This is not a NYS P-TECH issue, but a broader issue for the quality of online programming. An online, self-paced tutorial that offers up a number of readings and lectures will fail to engage most students. On the other hand, a course that is delivered through an online modality that is interactive, leverages technology to provide engaging content that might not be available in a classroom, encourages discussion and challenging questions, etc. will be very effective and may provide new opportunities for students who struggle in a traditional classroom.

Online courses will offer P-TECH students an alternative structure for academics, but it is vital that the goals and qualities of P-TECH permeate the experience. Collaboration and communication from both P-TECH students and faculty will be key in ensuring Online Course experience is beneficial for the students.

9. EASING THE TRANSITION

b. Support for Students on the College Campus

By the final years of the program, P-TECH students will be taking regular college courses on campus to acquire their college credits. Ensuring their success within a campus environment will take collaboration across numerous staff roles. Every P-TECH student is unique and will require support in a variety of ways across different arenas.

Preparing for a New Location

- Attend to logistics – Transportation may be the most important piece of the puzzle. Students need to arrive on time for classes and the transportation needs to be scheduled around the other daily runs. Transportation and class schedules need to be aligned and will influence which sections students register to take. Early classes can be especially challenging. Also, transportation will be needed for P-TECH on days when colleges are in session and the school districts are closed, e.g. prior to Labor Day, during mid-winter and spring break, etc. There's nothing more important than establishing relationships with the District Transportation Directors. Also, establish protocols in advance for notification of schedule changes (snow days, bus delays, individual faculty issues, etc.).

- Designate a P-TECH space for students to meet with the liaison and/or other students, to do homework between classes, and to relax.

- There's no one answer regarding whether P-TECH students should be in separate sections or integrated with the rest to of the student body. As with much else, it's best to begin with separate sections and gradually move to scheduling P-TECH students in regular sections. Separate sections are easier to schedule in terms of logistics and make it possible to identify specific instructors. The also provide additional support and security. On the other hand, P-TECH students will begin to emulate their older peers and gain maturity as they meet other students while separate sections can become "high school on the college campus". It's essential that in the final years, students are participating and succeeding in the regular college experience and have gained their independence. Also, as the move into the final semesters, there will be more variation among their schedules, and they will naturally begin to disperse. Complete a thorough scan of all services available on campus for students that can support P-TECH. Without asking for special attention, there is generally a plethora of excellent services that students can access, e.g. orientation, tutoring, advisement, media and research facilities, extra-curricular programming, etc.

Introducing New Faculty

- Brief all college faculty on the P-TECH model and students. This includes professors throughout the relevant departments, beyond those who will teach P-TECH students in the first semester, along with staff responsible for advisement, health and wellness, and a range of support services.

- Identify college faculty that offer the best "match" for P-TECH students and collaborate to register students early and secure the best schedule.

- Identify a core team of high school and college faculty to meet regularly and review student behavior, participation, and progress.

- Ensure that FERPA waivers are in place to share information on student progress.

- Have a regular schedule for designated college and P-TECH staff to meet and review student issues, progress, schedules, etc.

Transitioning Academics and Environment
- Distribute a handbook on college benefits and expectations for students on campus.

- Provide a liaison/counselor to support and monitor students on campus and provide follow-up. Responsibilities include taking daily attendance and providing data to high school, distributing textbooks and supplies, serving as liaison with college faculty to identify early warnings, providing regular reports and progress updates to students and parents, and generally helping students navigate the college campus and addressing issues. This person is case manager, mentor, coach, enforcer, cheer leader rolled into one.

- Help students to self-monitor their progress and develop mid-term corrections. Students need to understand how to access and interpret all available feedback. Are assignment grades and test scores available on line or directly? Can they meet with the professor to discuss their performance and identify any issues? They also need to consider ways to review their own progress in courses where there are few grades other than a midterm or final.

- Convene students in groups to discuss their experience and share effective practices. Provide opportunities for the students to continue to gain support from their P-TECH cohort.

Include Holistic Support
- Monitor whether students are accessing available support services and intervene to help them follow-up.
- Continue to identify all available academic supports on campus and within P-TECH. In addition to tutoring, additional labs, etc., consider "embedded tutors" or peer tutors who are taking the course alongside the students and have a good grasp of faculty expectations.
- Monitor social and emotional behavior and develop individual and group responses. Experience reveals that students need support to deal with frustration and failure with college courses, learn perseverance; self-advocate and follow-up once they ask for help, accept constructive criticism, and feel secure in the knowledge that they belong in college and can succeed.

Remember – P-TECH students are prone to all of the concerns, insecurities, and confusion that challenge every teenager. Given the target population, many of them will be grappling with a number of overwhelming family issues. Students may be homeless or in foster care, dealing with mental health or substance abuse issues, or juggling additional family responsibilities and burdens. P-TECH faculty will provide support and services as available and if necessary, identify other more appropriate resources.

10. ENHANCING SOCIAL AND EMOTIONAL MATURITY

There are numerous programs focused on engaging children in activities that will later encourage social and emotional maturity. For example, physical education and extra-curricular sports programs have long been touted as opportunities for young students to learn non-cognitive skills like teamwork, grit, and determination. Unfortunately, many existing programs focus solely on younger children and do not aim to nurture these skills in young adults, particularly students like those in P-TECH's target population. This section highlights innovative practices – both stand-alone programs and opportunities to leverage the existing instructional program – that support and develop the social and emotional maturity necessary to succeed in both post-secondary education and professional pursuits.

In 2015, CASEL published the thorough research study, "What Does Evidence-Based Instruction in Social and Emotional Learning Actually Look Like in Practice?" identifying specific activities and programs that can be implemented to develop SEM in classrooms. Excerpts and themes from this guide are included in this section but the study in full, cited in the bibliography, includes further detail along with additional protocols and publications.

10. ENHANCING SOCIAL AND EMOTIONAL MATURITY
a. Incorporating SEM within Academics

With such clear links between social & emotional and academic skills being explored, new tactics are being developed on how to effectively teach within these arenas simultaneously.

- Project and Work Based Learning – already key program elements for the P-TECH 9-14 model – are strong opportunities for students to cultivate their SEL skills. The Aspen Institute highlights that these occasions are efficient "given how students are expected to work independently and collaboratively and must draw on skills like self- management, social awareness, and cognitive flexibility." (Johnson 2017)

- Consistency will be key. Establishing expectations and college environments early in their academic career will help students acclimate to being dependable, communicative, and flexible team players. (Barnett 2016)

- Intertwining academic and SEM requirements is a recurring outcome in the research from the Aspen Institute. Suggestions include ensuring planning templates, lesson plans, and evaluation criteria account for SEM. The writers note "Thoughtfully integrating academics with SED requires time and space for collaboration among teachers." (Johnson 2017)

- Faculty training is critical. As a report from the Society for Research in Child Development notes, "It is difficult, if not impossible, for adults to help students build skills that they themselves do not possess." P-TECH faculty must critically assess their own SEM to be effective in training the same skills. (Jones 2012)

In addition, there are a number of effective programs that focus directly on social and emotional maturity, as discussed in the next section

10. ENHANCING SOCIAL AND EMOTIONAL MATURITY

b. Highlighting SEM as the Focus

There will be occasions to focus solely on social and emotional skills within a typical student experience. These sorts of opportunities give faculty room to emphasize particular behavioral patterns and can help to motivate P-TECH students in finessing specific Professional Skills.

- Goal-Setting exercises were found to be helpful among older students. Focusing on an attainable goal while noting the skills required to work towards it, like Persistence or Dependability, were found to promote SEM. (Dusenbury 2015)

- Incorporate and highlight routines within student schedules and activities to refine existing SEM skills. Consistency has been a proven key to success across academic, professional, and personal settings. In the long-run, students may continue to use some of these routines as tools throughout their lives. (Jones 2012)

- The NYS Education Department found that "addressing discipline as an opportunity for social emotional growth that seeks concurrent accountability and behavioral change through SEL-based restorative practices" worked to strengthen SEM. (NYSED 2018)

- Formally assessing the current status of students' SEM traits leads to the opportunity to set goals and concentrate on areas that need the most development. (Barnett 2016) By measuring a P-TECH student's aptitudes in key Professional Skills during grades 9-14, both the student and faculty will have benchmarks and clear understanding on their college and career readiness.

College and career success require social and emotional maturity from NYS P-TECH students. Work-based learning underscores the relevance of Professional Skills and offers motivation for students in preparation for career success. Linking Professional Skills and College Readiness provides further incentive for students to strive for social and emotional maturity in every aspect of their P-TECH program. This focus on SEM will then lead to academic and professional success.

Chapter IV – Wrapping Up

11. CONCLUSION

As the world and the modern workplace evolve, we must develop new approaches to education that can prepare students for success in a future we can only barely imagine. The PTECH 9-14 model leverages the most effective practices identified to date to offer an educational program that is more extensive and more varied than the traditional offerings, with the goal of providing students with a deep foundation of academic, technical, and professional skills that will enable them to adjust and advance regardless of the challenges they will meet. This model is complex and ambitious; it is only possible to implement a P-TECH 9-14 program with the support and innovation of committed partners. But, when these partners collaborate, challenge each other and the common wisdom, and respond creatively to the young people they serve, it is possible to provide an education for every student to succeed.

Reference Materials by Topic

The below references were found to be particularly helpful in the creation of this guide. These sources have been selected as jumping off points for additional information should it be needed. They are grouped here by topic and fall under *General*, *Determining Placement in College Courses,* and *Understanding Social & Emotional Maturity.*

General

"Middle-Skill Stem STEM State Policy Framework" by Ian Rosenblum & Richard Kazis
"Three Educational Pathways to Good Jobs: High School, Middle Skills, and Bachelor's Degree" by Anthony Carnevale et al.
"Completing College: A National View of Student Attainment Rates – Fall 2010 Cohort" by Doug Shapiro et al.
"How Georgia State Stopped Students from Slipping Through the Cracks" by Martha Dalton
"A Program Helps Low-Income Parents Graduate at Twice the Rate of Other Community College Students" by Meredith Kolodner

Determining Placement in College Courses

"Core Principles for Transforming Remediation within a Comprehensive Student Success Strategy" from Achieving the Dream et al.
"Multiple Measures for College Readiness" by Lexi Anderson and Mary Fulton
"Referral, Enrollment, and Completion in Developmental Education Sequences in Community Colleges" by Thomas Bailey et al.
"What we know about guided pathways" by Thomas Bailey et al.
"Multiple Measures Placement Using Data Analytics, An Implementation and Early Impacts Report" by Elisabeth Barnett et al.
"Predicting Success in College: The Importance of Placement Tests and High School Transcripts" by Clive Belfield et al.
"Meeting Overview: March 18, 2014 Meeting of the SUNY Trustees' Academic Affairs Committee" from Elizabeth Bringsjord
"The results are in. Corequisite remediation works" from Complete College America
"The Research Behind Corequisite Support" from Complete College America
"A Call to Action to Improve Math Placement Policies and Processes" by Lara Couturier and Jenna Cullinane
"LBCC Promise Pathways" from Long Beach Community College
"Do high-stakes placement exams predict college success?" by Judith Scott-Clayton
"Development, discouragement, or diversion? New evidence on the effects of college remediation" by Judith Scott-Clayton & Olga Rodriguez
"Improving the Targeting of Treatment: Evidence from College Remediation" by Judith Scott-Clayton et al.
"Corequisite Remediation: Spanning the Completion Divide" from Complete College America
"Improving Developmental Education Assessment and Placement: Lessons from Community Colleges Across the Country" by Michelle Hodara et al.
"Multiple Measurements to Predict Success" by Ashley A. Smith

Understanding Social & Emotional Maturity
"What Does Evidence-Based Instruction in Social and Emotional Learning Actually Look Like in Practice?: A Brief on Findings from CASEL's Program Reviews" by Linda Dusenbury et al.
"State Learning Standards to Advance Social and Emotional Learning: The State Scan of Social and Emotional Learning Standards, Preschool through High School" by Linda Dusenbury et al.
"This Time, With Feeling: Integrating Social and Emotional Development and College- and Career-Readiness Standards" by Hillary Johnson and Ross Wiener
"Social and Emotional Learning in Schools from Programs to Strategies" by Stephanie M. Jones & Suzanne M. Bouffard
"Putting the SEL into PBL" by Jennifer Money
"What New Research Tells Us About the Connections Between Social-Emotional Learning & the ABCs of Student Success" by Samuel Moulton et al.
"Social and Emotional Learning: Essential for Learning, Essential for Life" from the New York State Education Department

Complete Bibliography

AACC, ACCT, and Education Strategy Group. "New Report Explains How K-12 School and Community College Alignment Helps Student Success." *Association of Community College Trustees*, 28 Nov. 2018, www.acct.org/article/new-report-explains-how-k-12-school-and-community-college-alignment-helps-student-success.

Achieving the Dream, American Association of Community Colleges, Charles A Dana Center at the University of Texas at Austin, Complete College America, Education Commission of the States, Jobs for the Future." Core Principles for Transforming Remediation within a Comprehensive Student Success Strategy." 2015. (Retrieved from http://www.core-principles.org/)

Almada, Mary Conroy, et al. "Getting Real About Career Readiness: A Focus on Cross-Sector Competencies." *America Achieves Educator Networks*, May 2018, americaachieves.org/getting-real-about-career-readiness-a-focus-on-cross-sector-competencies/.

American Institute for Research. "Early College, Early Success: Early College High School Initiative Impact Study." *American Institute for Research*, Washington, D.C. 2013. www.air.org/earlycollegeimpact

Anderson, Lexi & Mary Fulton. "Multiple measures for college readiness." *ECS Education Trends*. Denver, CO: Education Commission of the States, Feb 2015.

Ashford, Ellie. "Mich. Colleges Find Success with Pathways – Community College Daily." *Community College Daily*, 7 Feb. 2018, www.ccdaily.com/2018/02/mich-colleges-find-success-pathways/.

Bailey, Thomas, et al, "Referral, Enrollment, and Completion in Developmental Education Sequences in Community Colleges." *Community College Research Center*, New York City, 2010.

Bailey, Thomas, Jaggars, S. S., & Jenkins, D. "What we know about guided pathways." Community College Research Center, New York, NY: Columbia University, Teachers College, 2015.

Barnett, Elisabeth A., Peter Bergman, Elizabeth Kopko, Vikash Reddy, Clive R. Belfield, and Susha Roy. "Multiple Measures Placement Using Data Analytics, An Implementation and Early Impacts Report." *Center for the Analysis of Post-Secondary Readiness*, 2018.

Barnett, Elisabeth, and Community College Research Center. "Building Student Momentum from High School into College." *Jobs for the Future - Ready or Not: It's Time to Rethink the 12th Grade*, 25 Feb. 2016, www.jff.org/resources/building-student-momentum-high-school-college/.

Belfield, C., & Crosta, P. M. "Predicting Success in College: The Importance of Placement Tests and High School Transcripts." Community College Research Center, New York, NY: Columbia University, Teachers College, 2012.

Berger, Andrea, et al. "Early College, Continued Success: Early College High School Initiative Impact Study." American Institutes for Research. Jan 2014.

Black, Kristin & Vanessa Coca. "New York City Goes to College New Findings and Framework for Examining College Access and Success." *The Research Alliance for New York City Schools.* June 2017.

Bowen, William G., Matthew M. Chingos, and Michael S. McPherson. "Crossing the Finish Line: Completing College at America's Public Universities." Princeton, NJ: Princeton UP, 2009.

Bringsjord, Elizabeth. "Meeting Overview: March 18, 2014 Meeting of the SUNY Trustees' Academic Affairs Committee." Memo to Ronald Ehrenberg, Academic Affairs Committee Members, and SUNY Trustees' Academic Affairs Committee, SUNY Plaza, NY. 6 March 2014.

Burdman, Pamela. "Degrees of Freedom: Diversifying Math Requirements for College Readiness and Graduation." *LearningWorks and Policy Analysis for California Education*, 23 Apr. 2015, www.learningworksca.org/dof1/.

Butrymowicz, Sarah. "Not Ready for College-Level Work." Community College Daily, The Hechinger Report, 5 Feb. 2017, www.ccdaily.com/2017/02/not-ready-for-college-level-work/.

CAPR. "Improving Student Placements: Rationale and Results." *Center for the Analysis of Postsecondary Readiness*. Community College Research Center. Jan. 2015.

CAPR. "CAPR: A Research Center on Developmental Education." *Center for the Analysis of Postsecondary Readiness*, Teachers College, Columbia University, postsecondaryreadiness.org/.

Carnevale, Anthony P, et al. "Three Educational Pathways to Good Jobs: High School, Middle Skills, and Bachelor's Degree." *The Georgetown University Center on Education and the Workforce*, 2018, cew.georgetown.edu/cew-reports/3pathways/.

Center for Community College Student Engagement. "Expectations meet reality: The underprepared student and community colleges." Austin, TX: *The University of Texas at Austin, College of Education*, Department of Educational Administration, Program in Higher Education Leadership. 2016.

Center for Community College Student Engagement. "Expectations meet reality: The underprepared student and community colleges." Program in Higher Education Leadership, Austin, TX: The University of Texas at Austin, College of Education, Department of Educational Administration, 2016.

CharacterLab.org. "Build Connections for Classrooms." *Character Lab*, 2018, characterlab.org/activities/build-connections-for-classrooms/.

CollegeBoard. "Next-Generation Accuplacer: Test Specifications, Release 1.0." 2016.

Complete College America. "Corequisite Remediation: Spanning the Completion Divide." *Complete College America*, 2019, completecollege.org/spanningthedivide/.

Complete College America. "The Research Behind Corequisite Support." *Complete College America: Resources*, completecollege.org/resource/the-research-behind-corequisite-support/.

Complete College America. (2015, June 23). "The results are in. Corequisite remediation works" [Web log post]. Retrieved from http://completecollege.org/the-results-are-in-corequisite-remediation-works/

Conley, David T. "A Complete Definition of College and Career Readiness." *Educational Policy Improvement Center*, 2 May 2012, www.epiconline.org.

Couturier, L., & Cullinane, J. "A Call to Action to Improve Math Placement Policies and Processes." *Achieving the Dream; Jobs for the Future; The Charles A. Dana Center*, 2015. http://www.jff.org/publications/call-action-improve-math-placement-policies-and-processes

Dalton, Martha. "How Georgia State Stopped Students from Slipping Through the Cracks." *90.1 FM WABE: Where ATL Meets NPR*, 18 Dec. 2017, www.wabe.org/georgia-state-stopped-students-slipping-cracks/.

Duckworth, A.L, & Quinn, P.D. "Development and validation of the Short Grit Scale (Grit- S)." Journal of Personality Assessment, 91, 166-174. 2009. http://www.sas.upenn.edu/~duckwort/images/Duckworth%20and%20Quinn.pdf

Duckworth, A.L., Peterson, C., Matthews, M.D., & Kelly, D.R. "Grit: Perseverance and passion for long-term goals." Journal of Personality and Social Psychology, 9, 1087-1101. 2007. http://www.sas.upenn.edu/~duckwort/images/Grit%20JPSP.pdf

Dunlosky, John, et al. "What Works, What Doesn't." *Scientific American Mind.* Sept 2013.

Dusenbury, L., Calin, S., Domitrovic, C., Weissberg, R.P. "What Does Evidence-Based Instruction in Social and Emotional Learning Actually Look Like in Practice? A Brief on Findings from CASEL's Program Reviews." A Publication of the Collaborative for Academic, Social, and Emotional Learning, 2015.

Dusenbury, L., Zadrazil, J., Mart, A., & Weissberg, R. "State Learning Standards to Advance Social and Emotional Learning: The State Scan of Social and Emotional Learning Standards, Preschool through High School." CASEL, Chicago, IL, University of Illinois at Chicago, 2011.

Dusenbury, Linda, et al. "What Does Evidence-Based Instruction in Social and Emotional Learning Actually Look Like in Practice?: A Brief on Findings from CASEL's Program Reviews." *Collaborative for Academic, Social, and Emotional Learning (CASEL)*, Oct. 2015.

Dusenbury, Linda, Zadrazil, J., Mart, A., & Weissberg, R. "State Learning Standards to Advance Social and Emotional Learning: The State Scan of Social and Emotional Learning Standards, Preschool through High School." CASEL, Chicago, IL: University of Illinois at Chicago, 2011.

ECS. "Sources: Strong Start to Finish." *Strong Start to Finish*, Education Commission of the United States, strongstart.org/sources.

Education Strategy Group. "How Community Colleges Work With K-12 to Improve College and Career Outcomes." *Aligning for Student Success*, 2018.

Ford, Wendy. "BTECH ISR Feedback from 2015-2016." 16 Sept. 2016.

Gewertz, Catherine. "12th Grade Classes Help Students Skip Remedial Courses: Classes Offer Bypass for College Remediation." *Education Week*, 26 Oct. 2016, pp. 1, 8.

Harmon, Tim. "Maximizing the Power of Career Pathways." *Measuring Success: Career Pathways Research*, CLASP. 2018 https://www.clasp.org/maximizing-power-career-pathways

Hilliard, Tom. "Struggling to the Finish Line: Community College Completion in New York State." *Center for an Urban Future (CUF)*, Dec. 2017, nycfuture.org/research/community-college-completion-in-new-york.

Hodara, Michelle, et al. "Improving Developmental Education Assessment and Placement: Lessons from Community Colleges Across the Country." *Community College Research Center*, Columbia Teacher's College, 1 Nov. 2012, ccrc.tc.columbia.edu/publications/developmental-education-assessment-placement-scan.html.

Hughes, K. L. & Scott-Clayton, J." Assessing developmental assessment in community colleges." CCRC Working Paper No. 19. New York, NY: Columbia University, Teachers College, Community College Research Center, 2011.

Immordino-Yang, Mary Helen. "Emotions, Learning, and the Brain: Exploring the Educational Implications of Affective Neuroscience." New York: W.W. Norton & Co., 2015.

Jenkins, David, and Sung-Woo Cho. "Get with the Program: Accelerating Community College Students' Entry into and Completion of Programs of Study." *Community College Research Center at Teachers College, Columbia University*, Jan. 2012.

Johnson, Hillary, and Ross Wiener. "This Time, With Feeling: Integrating Social and Emotional Development and College- and Career-Readiness Standards." *Aspen Institute: Education & Society Program*, Mar. 2017.

Jones, Stephanie M., and Suzanne M. Bouffard. "Social and Emotional Learning in Schools: From Programs to Strategies." *Social Policy Report: Sharing Child and Youth Development Knowledge*, vol. 26, no. 4, 2012. *Society for Research in Child Development*.

Kansas Standards for Mathematics, for. "Transition to College Algebra: 2019 Registration." *Kansas Standards for Mathematics > Training > Transition to College Algebra*, Kansas State Department of Education, community.ksde.org/Default.aspx?tabid=6146.

Kolodner, Meredith. "A Program Helps Low-Income Parents Graduate at Twice the Rate of Other Community College Students." *The Hechinger Report*, Teachers College at Columbia University, 6 Feb. 2019, hechingerreport.org/program-helps-low-income-parents-graduate-twice-rate-community-college-students/.

Long Beach Community College. "LBCC Promise Pathways." 2014. Retrieved from: http://www.lbcc.edu/promisepathways/

Macdonald, Heidi, et al. "50-State Comparison: High School Graduation Requirements." *Education Commission of the States*, 14 Feb. 2019, www.ecs.org/high-school-graduation-requirements/.

Malik, Zakariah. "Public Policy Institute: College Ready." *Public Policy Institute.* Apr. 2018.

Mathews, Jay. "Schools Are Working to Remove the Placement Test Barrier to Community College Success." *The Washington Post*, WP Company, 30 July 2015, www.washingtonpost.com/news/grade-point/wp/2015/07/30/schools-are-working-to-remove-the-placement-test-barrier-to-community-college-success/?noredirect=on&utm_term=.8ce27758318f#comments.

McFarland, Joel, et al. "The Condition of Education 2017." *National Center for Education Statistics*. May 2017.

Money, Jennifer. "Putting the SEL into PBL." ESchool News, 13 Dec. 2018, www.eschoolnews.com/2018/05/18/putting-the-sel-into-pbl/.

Moulton, Samuel, et al. "Social-Emotional Learning & the ABCs of Student Success." *Panorama Education*, Jan. 2019, go.panoramaed.com/sel-abc-research.

NAEP Blog. "New Report from NCES Shows States Adopting More Rigorous Standards." *NAEP Blog*, National Assessment of Educational Progress, nces.ed.gov/nationsreportcard/blog/state_mapping_standards.aspx.

Nagaoka, Jenny, and Matthew A. Holsapple. "Beyond Academic Readiness: Building a Broader Range of Skills for Success in College." *Jobs for the Future - Ready or Not: It's Time to Rethink the 12th Grade*, Feb. 2017, www.jff.org/resources/beyond-academic-readiness-building-broader-range-skills-success-college/.

Nagaoka, Jenny, et al. "Potholes on the Road to College: High School Effects in Shaping Urban Students' Participation in College Application, Four-Year College Enrollment, and College Match." *American Sociological Association: Sociology of Education*, 23 June 2011, journals.sagepub.com/doi/abs/10.1177/0038040711411280.

National Student Clearinghouse, Research Center. "Snapshot Report 32: Yearly Success and Progress Rates (Fall 2011 Entering Cohort)." 2018. https://nscresearchcenter.org/snapshot-report-yearly-success-and-progress-rates/

National Student Clearinghouse. "High School Benchmarks 2018: National College Progression Rates." *National Student Clearinghouse Research Center*, 2018.

NYSED. "New York State Social Emotional Learning Benchmarks." *New York State Education Department*, Aug. 2018.

NYSED. "Social and Emotional Learning: Essential for Learning, Essential for Life." *New York State Education Department*, Aug. 2018.

O'Neil Jr., Harold F. & Keith Allred. "Measurement of Workforce Readiness Competencies: Design of Prototype Measures." *Enhancing the Utility of Performance Assessments.* Evaluation Comment,

UCLA's Center for the Study of Evaluation & The National Center for Research on Evaluation, Standards and Student Testing. 1992.

Ostashevsky, Luba. "Many Who Pass State High School Graduation Tests Show up to College Unprepared." *The Hechinger Report*, 18 Feb. 2016, hechingerreport.org/many-who-pass-state-high-school-graduation-tests-show-up-to-college-unprepared/.
P-TECH. "P-TECH: Pathways in Technology Early College High School - Onondaga Community College." May 2016. Powerpoint Presentation.

Rosenblum, Ian, and Richard Kazis. "Middle-Skill Stem STEM State Policy Framework." *Jobs for the Future*, Oct. 2014.

Schaffhauser, Dian. "Researchers Building a Better Way of Placing Students in Community College." *Campus Technology*, Media Inc, ED-TECH Group, 10 Sept. 2018, campustechnology.com/articles/2018/09/10/researchers-building-a-better-way-of-placing-students-in-community-college.aspx?m=1.

Scott-Clayton J., Crosta, P. M., Belfield, C. "Improving the Targeting of Treatment: Evidence from College Remediation." *Educational Evaluations and Policy Analysis*, Vol. 36, No. 3, pp. 371-393), 2014.

Scott-Clayton, J. "Do high-stakes placement exams predict college success?." CCRC Working Paper No. 41, New York, NY: Columbia University, Teachers College, Community College Research Center, 2012.

Scott-Clayton, J., & Rodríguez, O. "Development, discouragement, or diversion? New evidence on the effects of college remediation." NBER Working Paper No. 18328, Cambridge, MA: National Bureau of Economic Research, 2012.

Scott-Clayton, Judith. "Ready or Not: How Multiple Measures of College Readiness Can Help Reduce Unnecessary Remediation." *Teachers College Record*. 17 Nov. 2014.

Shapiro, D., Dundar, A., Wakhungu, P.K., Yuan, X., Nathan, A. & Hwang, Y. "Completing College: A National View of Student Attainment Rates – Fall 2010 Cohort." *Signature Report No. 12,* Herndon, VA: National Student Clearinghouse Research Center, Nov 2016.

Shapiro, Doug. "PDP Enters Phase Two to Increase Student Access and Success." *Clearinghouse Today Blog*, National Student Clearinghouse, 16 Apr. 2019, studentclearinghouse.org/nscblog/postsecondary-data-partnership-provides-interactive-data-dashboards-and-metrics-for-increasing-student-access-and-success/.

Smith, Ashley A. "Cal State to End Placement Exams." *California State University Looks to End Placement Exams*, Inside Higher Ed, 13 June 2017, www.insidehighered.com/news/2017/06/13/california-state-university-looks-end-placement-exams.

Smith, Ashley A. "Determining a Student's Place." *Growing Number of Community Colleges Use Multiple Measures to Place Students*, Inside Higher Ed, 26 May 2016, www.insidehighered.com/news/2016/05/26/growing-number-community-colleges-use-multiple-measures-place-students.

Smith, Ashley A. "Multiple Measurements to Predict Success." *New Report Encourages Use of Multiple Measurements for Student Placement*, Inside Higher Ed, 20 Sept. 2018, www.insidehighered.com/news/2018/09/20/new-report-encourages-use-multiple-measurements-student-placement.

Spegman, Abby. "Passed Smarter Balanced? Colleges Say Skip Placement Tests." *The Bulletin*, The Bulletin, 24 July 2016, www.bendbulletin.com/localstate/4520375-151/passed-smarter-balanced-colleges-say-skip-placement-tests.

SUNY. "SUNY Fast Facts." *The State University of New York*, Jan. 2019, www.suny.edu/about/fast-facts/.

University of Pennsylvania. "College Promise Programs." *Penn GSE AHEAD - College Promise Programs*, ahead-penn.org/creating-knowledge/college-promise#map.

Vargas, Joel, and Andrea Venezia. "Co-Design, Co-Delivery, and Co-Validation: Creating High School and College Partnerships to Increase Postsecondary Success." *Jobs for the Future - Ready or Not: It's Time to Rethink the 12th Grade*, 20 Nov. 2015, www.jff.org/resources/co-design-co-delivery-and-co-validation/.

Vargas, Joel, and Krista Sabados. "Creating Strong Transitions from High School through College: A Progress Report on Redesigning Senior Year." *Jobs for the Future*, 30 May 2018, www.jff.org/resources/creating-strong-transitions-high-school-through-college-progress-report-redesigning-senior-year/.

Whinnery, Eric, and Sarah Pompelia. "50-State Comparison: Developmental Education Policies." *Education Commission of the States*, 10 Dec. 2018, www.ecs.org/50-state-comparison-developmental-education-policies/.

Zinth, Jennifer Dounay. "50-State Comparison: Dual / Concurrent Enrollment Policies." *Education Commission of the States*, 25 Mar. 2016, www.ecs.org/dual-concurrent-enrollment-policies/.

Short Grit Scale

Directions for taking the Grit Scale: Please respond to the following 8 items. Be honest – there are no right or wrong answers!

1. New ideas and projects sometimes distract me from previous ones.*
   - ❑ Very much like me
   - ❑ Mostly like me
   - ❑ Somewhat like me
   - ❑ Not much like me
   - ❑ Not like me at all

2. Setbacks don't discourage me.
   - ❑ Very much like me
   - ❑ Mostly like me
   - ❑ Somewhat like me
   - ❑ Not much like me
   - ❑ Not like me at all

3. I have been obsessed with a certain idea or project for a short time but later lost interest.*
   - ❑ Very much like me
   - ❑ Mostly like me
   - ❑ Somewhat like me
   - ❑ Not much like me
   - ❑ Not like me at all

4. I am a hard worker.
   - ❑ Very much like me
   - ❑ Mostly like me
   - ❑ Somewhat like me
   - ❑ Not much like me
   - ❑ Not like me at all

5. I often set a goal but later choose to pursue a different one.*
   - ❑ Very much like me
   - ❑ Mostly like me
   - ❑ Somewhat like me
   - ❑ Not much like me
   - ❑ Not like me at all

6. I have difficulty maintaining my focus on projects that take more than a few months to complete.*
   - ❑ Very much like me
   - ❑ Mostly like me
   - ❑ Somewhat like me
   - ❑ Not much like me
   - ❑ Not like me at all

7. I finish whatever I begin.
 - ❑ Very much like me
 - ❑ Mostly like me
 - ❑ Somewhat like me
 - ❑ Not much like me
 - ❑ Not like me at all

8. I am diligent.
 - ❑ Very much like me
 - ❑ Mostly like me
 - ❑ Somewhat like me
 - ❑ Not much like me
 - ❑ Not like me at all

Scoring:
1. For questions 2, 4, 7 and 8 assign the following points:
   5 = Very much like me
   4 = Mostly like me
   3 = Somewhat like me
   2 = Not much like me
   1 = Not like me at all

2. For questions 1, 3, 5 and 6 assign the following points:
   1 = Very much like me
   2 = Mostly like me
   3 = Somewhat like me
   4 = Not much like me
   5 = Not like me at all

Add up all the points and divide by 8. The maximum score on this scale is 5 (extremely gritty), and the lowest score on this scale is 1 (not at all gritty).

Grit Scale citation

Duckworth, A.L, & Quinn, P.D. (2009). Development and validation of the Short Grit Scale (Grit-S). *Journal of Personality Assessment*, *91*, 166-174.
http://www.sas.upenn.edu/~duckwort/images/Duckworth%20and%20Quinn.pdf

Duckworth, A.L., Peterson, C., Matthews, M.D., & Kelly, D.R. (2007). Grit: Perseverance and passion for long-term goals. *Journal of Personality and Social Psychology, 9*, 1087-1101.
http://www.sas.upenn.edu/~duckwort/images/Grit%20JPSP.pdf

What Does Evidence-Based Instruction in Social and Emotional Learning Actually Look Like in Practice?

A Brief on Findings from CASEL's Program Reviews

LINDA DUSENBURY, SOPHIA CALIN, CELENE DOMITROVICH, AND ROGER P. WEISSBERG

A Publication of the Collaborative for Academic, Social, and Emotional Learning

October 2015

Abstract

In this brief we use the CASEL reviews of evidence-based programs to answer the question, "What do teachers and other adults actually need to do in the classroom and school to help students achieve the goals laid out in social and emotional learning (SEL) standards?" Specifically, we identify and describe four approaches that have been successfully used to promote social and emotional development in students. One approach uses free-standing lessons that provide step-by-step instructions to teach students' social and emotional competencies. The second approach uses general teaching practices to create classroom and schoolwide conditions that facilitate and support social and emotional development in students. A third approach integrates skill instruction or practices that support SEL within the context of an academic curriculum. The fourth approach provides school leaders with guidance on how to facilitate SEL as a schoolwide initiative. The identification of these four approaches and types of strategies that support each one should help school leaders and teachers develop a comprehensive plan for developing students' social and emotional competencies.

For more information go to casel.org.

In our work with states developing learning standards to articulate what students should know and be able to do in terms of their social and emotional development (Dusenbury et al., 2015), we have found that state teams often struggle with an immediate question from their stakeholders and constituents: How can teachers effectively promote or teach social and emotional competence to achieve these standards? Put another way: What do teachers and other adults actually need to do in the classroom and school to help students achieve the goals laid out in social and emotional learning (SEL) standards?

Several authors have begun to explore this question at different grade levels (e.g., Bierman, & Motamedi, 2015; Jagers, Harris, & Skoog, 2015; Rimm-Kaufman, & Hulleman, 2015; Williamson, Modecki, & Guerra, 2015). Denham (2015) has done the important work of identifying key developmental tasks related to social and emotional competence at different ages from preschool through high school (See Table 1 on the next page).

In the past 15 years CASEL has produced three separate guides to evidence-based programs designed to promote student social and emotional development (CASEL, 2003; CASEL 2013; CASEL, 2015) In 2003 CASEL published *Safe and Sound: An Educational Leader's Guide to Evidence-Based Social and Emotional Learning (SEL) Programs*, which reviewed 80 SEL programs. From these we identified 22 "SELect" programs that, according to rigorous research, led to positive outcomes in students' academic achievement and behavior. Ten years later we published the *2013 Guide to Preschool and Elementary Programs*, in which we identified 23 SELect programs that produced meaningful outcomes in terms of student academic, social, and emotional behaviors. Most recently we released the *2015 Guide to Middle and High School Programs*, which identified nine SELect programs. We believe our reviews of the actual content of evidence-based programs can inform the answers to the important question of how adults can effectively promote student SEL in the classroom and school. The purpose of this brief is to draw on these previous reviews of evidence-based programs to identify and describe the most common strategies used to promote student SEL.

Four Strategies that Promote SEL

In all of CASEL's program reviews from preschool through high school, and across all the many programs we have reviewed, we have observed that evidence-based SEL programs use one or more of the following four approaches to promoting social and emotional competence across the five core competency clusters (i.e., self-awareness, self-management, social awareness, relationship skills, and responsible decision-making).

1. Free-standing lessons that provide explicit, step-by-step instructions to teach students social and emotional competencies across the five core competency clusters—on age-appropriate topics such as labeling feelings, coping with anxiety or stress, setting and achieving goals, developing empathy and compassion, communicating effectively, resolving conflict, being assertive, and making responsible decisions. Classroom activities develop specific skills using strategies that are sequenced within and across lessons (Durlak et al., 2011). They rely on active learning techniques, such as discussions, small-group work, and role plays, and appropriate levels of cognitive complexity for different grade levels (Bloom et al., 1956) to engage students (Alldrege, 2015). The most effective lessons provide explicit instruction and promote generalization by including opportunities for practicing skills beyond the lesson and throughout the day, or through connections during academic lessons. Some programs using this approach also help teachers build positive relationships with students and create a warm and inclusive classroom environment.

The Case for Social and Emotional Learning

Social and emotional learning (SEL) is the process through which children and adults acquire the knowledge, attitudes, and skills necessary to understand and manage emotions, set and achieve positive goals, feel and show empathy for others, establish and maintain positive relationships, and make responsible decisions. Social and emotional skills are critical to being a good student and citizen.

Extensive research, including a meta-analysis of 213 studies, has shown that programs designed to promote social and emotional competence in students produce important outcomes including improvements in standardized academic test scores that are, on average, 11 percentile points higher for students who received SEL programming compared to students who did not receive SEL (Durlak et al., 2011). In addition, high-quality instruction in SEL has been associated with reduced problem behaviors including conduct problems, drug use, and violence (e.g., Botvin et al., 1995; Farrell & Meyer, 2001). The cost-effectiveness of these approaches has also been established in a recent report finding that programs designed to promote social and emotional competence produce, on average, a benefit to cost ratio of 11:1 (Belfield et al., 2015).

- An SEL lesson conducted in a preschool classroom might teach children how to identify happy, sad, and angry feelings using puppets and include a discussion about the types of events that trigger these feelings. Preschool students might also receive a lesson on how to calm down and solve interpersonal conflicts using a few simple steps (e.g., stop and take a breath, say how you feel and why, let the other person say how they feel and why, and decide together what you can do).

- An SEL lesson in an elementary class might have a lesson on how to label feelings using words like "pleasant," "happy," "irritated," or "angry." Students might learn a variety of techniques for managing anxiety and stress such as deep breathing or yoga. Other activities might include reading a story and reflecting on the content to explore different perspectives and feelings of others. Students might also engage in activities that require them to work together as a class to set and achieve a community improvement goal. They might also learn steps for solving interpersonal problems.

- An SEL lesson in a middle or high school classroom might involve building students' vocabulary for describing their feelings as well as a discussion of mixed emotions. Students might also explore the fact that different people can experience different feelings in a similar situation. SEL lessons geared for adolescents often include practical strategies for coping with stress, anxiety, or anger (e.g., deep breathing, mental rehearsal, muscle relaxation, or visualization). They might include a focus on personal competence. For example, students might be asked to identify a personal goal such as raising a grade in math or improving time running the 100-yard dash, including monitoring their progress toward achieving the goal over several weeks. As part of their goal-setting project students might also learn a variety of techniques for reinforcing themselves and maintaining a high level of motivation. SEL lessons at the secondary level also focus on building students' interpersonal skills. Lessons on social awareness might involve opportunities for students to work with partners and engage in discussion in order to learn about different perspectives and to develop empathy and respect for others. They might learn specific social skills (e.g. listening) or a set of steps for a specific skill (e.g., how to begin, maintain, and end conversations; how to build positive relationships; how to resist unwanted peer pressure). Conflict resolution strategies at the secondary level tend to be more complex than at the elementary school level and may include multiple additional steps such as stop, calm down, identify the problem, identify alternative solutions, research and evaluate possible solutions, choose the best solution, try it out, and evaluate whether it was an effective solution.

- Across all developmental levels, the "free-standing lesson" approach also promotes SEL throughout the whole school and beyond. It fosters a positive school climate by providing teachers and staff with common language, goals, and strategies for SEL. Strategies that students learn as part of SEL are most effective when

Table 1. Developmental Tasks of Social and Emotional Competence Across the Grade Spans*	
Preschool	- Become and be engaged, socially and academically, - Manage emotions (appropriately for a young child), especially with adult support. - Stay connected to adults, while beginning to develop peer relationships. - In play and learning, pay attention and follow directions, wait, sit still, and effectively join and leave groups.
Elementary	- Become increasingly successful at navigating peer relationships and friendships independent of adult support. - Show and share emotions appropriately, and with appropriate people.
Middle and High School	- Form closer relationships with peers of both genders. - Manage increasingly complex academic content and tasks, with increasing independence from adults. - Effectively manage transitions to middle and high school. - Increase independence from adults. - Begin preparing for adult roles (e.g., become more nurturing to younger children, begin preparing and practicing for work roles). - Develop an ethical value system that allows for responsible decision-making and responsible behavior toward self and others.
*Drawn from Denham (2015).	

everyone in the building is familiar with them, so that they can support their use throughout the day and in real-life situations that occur outside lesson times and in settings other than the classroom. Across all developmental levels parents and caregivers also receive information about how they can reinforce student learning at home. They might also receive report cards that describe students' progress on social and emotional dimensions. Parents and community members might be invited to help or participate in lessons and activities, and students might be involved in service learning activities that give them an opportunity to practice new skills at the same time they make a positive contribution to their community.

2. General teaching practices that create classroom and schoolwide conditions that facilitate and support social and emotional development in students. Although SEL teaching practices are similar across the different developmental levels, the specific interactions and techniques teachers are encouraged to use vary according to the students' developmental stages. This approach includes general teaching practices designed to:

- Establish positive and predictable classroom environments using:
  ⇒ Shared expectations or classroom rules that teachers and students develop together to establish positive social norms for the classroom (e.g., listen respectfully when others are speaking).
  ⇒ Practices that reflect and communicate high expectations for achievement.
- Promote positive teacher-student relationships, including, for example:
  ⇒ Routines and structures such as morning check-ins or conflict resolution/peace corners. At the middle or high school level a program might also use advisory periods to create small groups that stay together across grades.
  ⇒ Practices that help establish positive and trusting relationships among teachers, students, and peers (e.g., welcoming students to the class by name and interacting with students in a respectful way that promotes trust and models desired behaviors).
  ⇒ Strategies that help teachers learn how to use cooperative learning in a way that establishes trust between students and teachers, and also provides students with opportunities to develop positive relationship skills with peers.
- Provide ongoing instructional practices that support students' SEL, including guidance for teachers on:

⇒ How to ask questions in a way that will support and encourage students' authentic voice (e.g., "Tell me about your favorite passage in the poem, and why you liked it.").
⇒ How to create opportunities for students to explore their own interests and develop their own strengths (e.g., a kindergarten teacher might set up centers for different types of imaginative play; a third-grade teacher might have students create an art project that celebrates what they're passionate about; a middle school teacher might have students write an essay about their dreams for the future; and a high school teacher might help students identify community mentors for independent field work);
⇒ How to provide students with authentic feedback (e.g., a kindergarten teacher might observe, "I saw the way you waited your turn to hold the bunny just now. I know it can be hard to wait your turn, but you crossed your arms to keep your hands to yourself. I saw you take a breath to calm down. I was proud of you, and you should be proud of yourself." A high school teacher might offer, "I know how you feel about public speaking, but I saw the way you took a couple of deep breaths before you gave your report. Your delivery was easy to follow, and you didn't rush.")
⇒ How to create events or classroom traditions that involve family and community members in meaningful ways in the life of the classroom and school.
⇒ Instructional practices such as project-based learning, creating opportunities for students to develop and voice their own ideas and develop the skills needed to get along with others.
⇒ As students become older and more idealistic, how to effectively use community service and real-life application of developing skills and student voice in field-based learning activities.

3. Integration of skill instruction and practices that support SEL within the context of an academic curriculum. Examples of this type of program approach include:

- *4Rs* (Reading, Writing, Respect, and Resolution) is a program at the elementary level (K-8) that teaches SEL as part of a language arts curriculum that also promotes reading, writing, speaking, and listening. As described in the *2013 CASEL Guide*, *4Rs* provides grade-specific materials that include book talks, read-alouds, and interactive lessons to develop social and emotional skills.

- *The RULER Approach* to social and emotional learning is a schoolwide approach designed to promote emotional literacy. Key "anchor" skills include recognizing, understanding, labeling, expressing, and regulating emotions. As described in the *2013 CASEL Guide,* teachers learn and then teach the anchor skills to develop self-awareness, perspective-taking ability, and empathy to create a positive classroom and school climate. Teachers learn how to integrate the RULER approach into their standard curriculum, and they also provide students with a vocabulary that supports emotional literacy.
- At the middle school level, *Expeditionary Learning* promotes students' social and emotional development through teaching practices and through integration with academic curricula. For example, the program offers an open-source English Language Arts curriculum designed to build cultural sensitivity and respect for diversity.
- *Facing History and Ourselves* is a social studies or history curriculum at the middle and high school level that focuses on historical examples of intergroup conflict involving racism and prejudice. The program helps students develop awareness of self and others and build relationship skills through classroom activities while at the same time learning social studies and history. The program promotes deep awareness and respect for diversity. Its teaching practices help teachers create a supportive and democratic classroom environment that fosters civic learning and social and ethical reflection.

4. Guidance to administrators and school leaders on how to facilitate SEL as a schoolwide initiative by restructuring the school's organizational structures, operations, and academic, social, and emotional learning goals. Evidence-based programs that take this approach might also provide school leaders with a variety of resources and guidance on the following processes:

- How to form an SEL leadership team.

- How to create a schoolwide vision for SEL, including, for example, schoolwide goals and objectives, mission statements, and strategic plans.
- How to conduct a needs assessment to identify strengths and areas for improvement that are important to SEL implementation.
- How to develop learning standards and policies that will support students' social and emotional development.
- How to select evidence-based programs to support SEL.
- How to integrate SEL programming into all aspects of the school's functioning.
- How to plan for professional learning for all staff.
- How to use data to inform decisions that involve students' academic, social, and emotional learning.
- How to monitor progress toward SEL goals.

In short, this fourth approach creates policies and organizational structures within a school or school system that support students' social and emotional development.

Supporting SEL with Standards

The identification of these four approaches and the types of strategies that support each one should help school leaders and teachers develop a comprehensive plan to foster social and emotional learning at the same time it creates positive classroom conditions and school climates. Several states and school districts are laying the foundation for these strategies in their learning standards. For example, Kansas has developed instructional examples for personal development, social development and character development from kindergarten through high school. Anchorage, Alaska has identified "sample activities" that correspond to each of their standards, from early elementary through high school. Many of the Illinois performance descriptors could also be used to develop instructional activities that support SEL. We look forward to using the findings from CASEL's program reviews to identify and describe evidence-based practices in more detail and with examples based on actual school and classroom practice.

References

Alldredge, S. (June 3, 2015) *What is powerful instruction?* Presentation at CASEL's Collaborating District Initiative (CDI) Consultant Meeting, Chicago, IL.

Belfield, C., Bowden, B., Klapp, A., Levin, H., Shand, R., & Zander, S. (February, 2015). *The economic value of social and emotional learning*. Center for Benefit-Cost Studies in Education. Teachers College, Columbia University, New York (REVISED VERSION).

Bierman, K. L., & Motamedi, M. (2015). SEL programs for preschool children. In J. A. Durlak, C. E. Domitrovich, R. P. Weissberg, & T. P. Gullotta (Eds.), *Handbook on social and emotional learning: Research and practice* (pp. 135-150). New York: Guilford.

Bloom, B. S. (Ed.). Engelhart, M. D., Furst, E. J., Hill, W. H., Krathwohl, D. R. (1956). *Taxonomy of educational objectives, Handbook I: The cognitive domain*. New York: David McKay Co Inc.

Botvin, G.J., Baker, E., Dusenbury, L., Botvin, E.M., Diaz, T. (1995). Long-term follow-up results of a randomized drug abuse prevention trial in a white middle-class population. *Journal of the American Medical Association, 273*, 1106-1112.

Collaborative for Academic, Social and Emotional Learning (2003). *Safe and sound: An educational leaders' guide to evidence-based social and emotional learning (SEL) programs*. Chicago, IL: Author.

Collaborative for Academic, Social and Emotional Learning (2013). *The 2013 CASEL Guide: Effective social and emotional learning programs-preschool and elementary school edition*. Chicago, IL: Author.

Collaborative for Academic, Social and Emotional Learning (2015). *The 2015 CASEL Guide: Effective social and emotional learning programs-middle and high school edition*. Chicago, IL: Author.

Collaborative for Academic, Social and Emotional Learning (2015). *CASEL schoolkit: A guide for implementing school-wide academic, social, and emotional learning*. Chicago, IL: Author.

Denham, S. (2015). Assessment of social and emotional learning in educational contexts. In J. A. Durlak, C. E. Domitrovich, R. P. Weissberg, & T. P. Gullotta (Eds.), *Handbook of social and emotional learning: Research and practice* (pp. 285-300). New York: Guilford.

Durlak, J. A., Weissberg, R. P., Dymnicki, A. B., Taylor, R. D., & Schellinger, K. B. (2011). The impact of enhancing students' social and emotional learning: A meta-analysis of school-based universal interventions. *Child Development, 82*, 405–432. doi:10.1111/j.1467-8624.2010.01564.x

Dusenbury, L., Newman, J. Z., Weissberg, R. P., Goren, P., Domitrovich, C. E., & Mart, A. K. (2015). Developing a blueprint for preschool to high school education in social and emotional learning: The case for state learning standards. In J. A. Durlak, C. E. Domitrovich, R. P. Weissberg, & T. P. Gullotta (Eds.), *Handbook of social and emotional learning: Research and practice* (pp. 532-548). New York: Guilford Press.

Farrell, A. D., Meyer, A. L., & White, K. S. (2001). Evaluation of Responding in Peaceful and Positive Ways (RIPP): A school-based prevention program for reducing violence among urban adolescents. *Journal of Clinical Child Psychology, 30*(4), 451-463.

Jagers, R.J., Harris, A., & Skoog, A. (2015). A review of classroom-based SEL programs at the middle school level. In J. A. Durlak, C. E. Domitrovich, R. P. Weissberg, & T. P. Gullotta (Eds.), *Handbook of social and emotional learning: Research and practice* (pp. 167-180). New York: Guilford.

Rimm-Kaufman, S., & Hulleman, C.S. (2015) SEL in elementary school settings: Identifying mechanisms that matter. In J. A. Durlak, C. E. Domitrovich, R. P. Weissberg, & T. P. Gullotta (Eds.), *Handbook of social and emotional learning: Research and practice* (pp. 151-166). New York: Guilford.

Williamson, A.A., Modecki, K.L., & Guerra, N.G., (2015) SEL programs in high school. In J. A. Durlak, C. E. Domitrovich, R. P. Weissberg, & T. P. Gullotta (Eds.), *Handbook of social and emotional learning: Research and practice* (pp. 181-196). New York: Guilford.

BUILD CONNECTIONS Facilitation Guide

HOW TO USE

Before using Build Connections, students should understand the *purpose* and unpack examples. We recommend this sequence:

1. Prep Activity
Includes student stories, or you could develop your own.

2. Animation
www.characterlab.org/building-connections

3. Examples

4. Student Activity

FAQ

HOW SHOULD I PREPARE TO LEAD THIS ACTIVITY?

Before you lead it with students, try the activity yourself. While you practice, reflect on your own process and the type of thinking you use. This will help you model the activity and coach students.

WHAT HELPS STUDENTS BUILD THE STRONGEST CONNECTIONS?

Students will grow from practice. But if they seem stuck, keep in mind these tips:

1. Students might feel "locked in" to the first connection they make. Encourage them to branch out and be creative.

2. Connections can start with personal interests OR class content. Encourage students to approach it from both sides.

3. Connections might be important now or in the future. Consider both when brainstorming.

WHAT SHOULD I DO AFTER THE ACTIVITY?

Reviewing student responses is a great opportunity to learn more about students and to see what content is meaningful for them.

If you give feedback on their connections, focus on helping students elaborate or clarify.

Going forward, you could use student connections in lesson openers and examples.

HOW CAN THIS ACTIVITY BE EXTENDED?

These student connections are great starting points for individual research and project-based learning. Encourage students to pursue and deepen their connections.

You can also deepen connections by having students write a letter to someone else who would benefit from the connection.

WHAT IS MOST IMPORTANT AS I ADAPT THIS FOR MY CLASSROOM?

The core of Build Connections is making space for students to reflect on how school can connect to their own passions. Details might change, but at the end of the day, if students make school meaningful on a personal level—or even just start this process—this activity will be a success.

SAMPLE SCRIPT

Try saying something like this to the class. Give sufficient wait time between steps.

1. *First, we'll brainstorm things that are important and interesting to you. List them in section ①. Think about what you do for fun, what you like to learn about, or what you want to do in the future.*

2. *Now we're going to think about the things you've learned in this [unit/lesson]. In section ②, list major topics you remember. Include specific vocabulary and details.*

3. *Next we'll think about POSSIBLE connections. This section can be challenging at first, so be patient. Looking at columns ① and ②, think about how parts of your life in the first section might connect to the content in the second section. Draw a line when you think of a possible connection and try to think of more.*

4. *Review the connections you brainstormed and pick one that feels significant to you. Summarize it in section ④. The more specific you can be, the better.*

5. *Now, think more about your connection and how it's important to you. It could be important now or in the future. In section ⑤, summarize why it's important.*

6. *(Optional, recommended) Now we're going to share our connections with each other. This is a chance to learn about each other and think more about the content we're learning.* (Use discussion structures that make the most sense for your classroom.)

V.1

New York State
EDUCATION DEPARTMENT
Knowledge › Skill › Opportunity

NEW YORK STATE
SOCIAL EMOTIONAL LEARNING BENCHMARKS

Research suggests that student learning benchmarks (or standards) may increase the likelihood that students will receive better instruction in Social Emotional Learning (SEL), experience improved school connectedness, and become better learners (Osher & Kendziora, 2008 and Jones & Bouffard, 2012).

To enable students to take full advantage of educational opportunities throughout their school experience in grades K-12 and, equally important, to prepare them for college and/or career, the School Climate and Student Engagement Workgroup of the New York State Safe Schools Task Force have identified the following goals to guide SEL benchmarks for New York State schools:

1. **Develop self-awareness and self-management skills essential to success in school and in life.**

2. **Use social awareness and interpersonal skills to establish and maintain positive relationships.**

3. **Demonstrate ethical decision-making skills and responsible behaviors in personal, school, and community contexts.**

In the following pages, these goals are further explained, with associated benchmarks provided for voluntary use at the early elementary (K-3), late elementary (4-5), middle school (6-8), early high school (9-10), and late high school (11-12) levels.

Goal 1: Develop self-awareness and self-management skills essential to success in school and in life.

Knowing one's emotions, how to manage them, and ways to express them constructively are essential life skills. These skills enable one to handle stress, control impulses, and motivate oneself to persevere when faced with personal, academic, or work-related obstacles. A related set of skills involves accurately assessing one's abilities and interests, building upon strengths, making effective use of family, school, and community supports and resources. Finally, it is critical for an individual to be able to establish and monitor one's own progress toward achieving goals, whether personal, academic, and career or work-related. These social emotional skills, thought processes and behavioral strategies can be contributing factors to one's sense of self-confidence and sense of optimism as they provide a strong foundation for achieving success in school and in life.

Grade Level	Early Elementary (K-3)	Late Elementary (4-5)	Middle School (6-8)	Early HS (9-10)	Late HS (11-12)
A. Identify and manage one's emotions and behavior.	**1A.1a.** Recognize and describe emotions and how they are linked to behavior. **1A.1b.** Demonstrate control of impulsive behavior.	**1A.2a.** Describe a range of emotions and the situations that cause them. **1A.2b.** Describe and demonstrate ways to express emotions in a constructive manner. **1A.2c.** Demonstrate control of behaviors that interfere with time on task.	**1A.3a.** Analyze factors that create stress or motivate successful performance. **1A.3b.** Apply strategies to manage stress and to motivate oneself to constructively address challenges. **1A.3c.** Demonstrate the capacity to maintain concentration on a task.	**1A.4a.** Analyze how thoughts and emotions affect decision making and responsible behavior. **1A.4b.** Generate ways to develop more positive attitudes. **1A.4c.** Demonstrate the capacity to shift one's focus between tasks and maintain concentration on one's goal.	**1A.5a.** Evaluate how expressing one's emotions in different situations affects others. **1A.5b.** Evaluate how expressing more positive attitudes influences others. **1A.5c.** Demonstrate the ability to adjust one's behavior in response to changes in one's environment or to changes in one's goal(s).

A11

Grade Level	Early Elementary (K-3)	Late Elementary (4-5)	Middle School (6-8)	Early HS (9-10)	Late HS (11-12)
B. Recognize personal qualities and external supports.	**1B.1a.** Describe one's likes, dislikes, needs, wants, strengths, challenges, and opinions. **1B.1b.** Identify family, peer, school, and community strengths and supports.	**1B.2a.** Describe personal strengths/skills and interests that one wants to develop. **1B.2b.** Explain how family members, peers, school personnel, and community members can support responsible behavior and school success.	**1B.3a.** Analyze- how personal strengths and areas in need of improvement influence choices and outcomes. **1B.3b.** Analyze how making use of school and community supports and opportunities can help one surmount challenges and contribute to achievement in school and in life.	**1B.4a.** Set priorities that build on strengths and identify areas for improvement. **1B.4b.** Analyze how positive adult role models and support systems contribute to personal growth and achievement in school and in life.	**1B.5a.** Implement a plan to build on a personal strength, meet a personal need, or address a personal challenge. **1B.5b.** Implement a plan to build on a personal strength to meet a need, or address a challenge facing one's community. **1B.5c.** Evaluate how developing interests and "giving back"/filling useful roles support school and life success.
C. Demonstrate skills related to achieving personal and academic goals.	**1C.1a.** Describe why learning is important in helping students achieve personal goals. **1C.1b.** Identify goals for personal behavior progress, achievement, or success.	**1C.2a.** Describe the steps in setting and working toward goal achievement. **1C.2b.** Monitor progress on achieving a short-term personal goal.	**1C.3a.** Set a short-term goal and develop a plan for achieving it. **1C.3b.** Analyze why one achieved or did not achieve a goal.	**1C.4a.** Identify strategies to make use of resources to overcome obstacles to achieve goals. **1C.4b.** Apply strategies to overcome obstacles to goal achievement.	**1C.5a.** Set a post-secondary goal with action steps, timeframes, and criteria for evaluating achievement. **1C.5b.** Monitor progress toward achieving a goal and evaluate one's performance against criteria.

A12

Goal 2: Use social awareness and interpersonal skills to establish and maintain positive relationships.

The ability to recognize the thoughts, feelings, and perspectives of other individuals, including ideas and viewpoints that are different from one's own, and to empathize with others from diverse backgrounds, is central to forming and maintaining positive relationships at all life stages. Equally important to establishing positive peer, family, and work relationships are strategies and skills that enable one to adapt one's behavior in various settings, cooperate and collaborate with another person or in a group, communicate respectfully, and constructively resolve conflicts with others.

Grade Level	Early Elementary (K-3)	Late Elementary (4-5)	Middle School (6-8)	Early HS (9-10)	Late HS (11-12)
A. Recognize the feelings and perspectives of others.	**2A.1a.** Recognize that others may experience situations differently from oneself. **2A.1b.** Use listening skills to identify the feelings and perspectives of others. -	**2A.2a.** Identify verbal, physical, and situational cues that indicate how others may feel. **2A.2b.** Describe the expressed feelings and perspectives of others.	**2A.3a.** Hypothesize others' feelings and perspectives in a variety of situations and explain the reasons for one's conjecture. **2A.3b.** Analyze how one's behavior may affect others.	**2A.4a.** Analyze similarities and differences between one's own and others' perspectives. **2A.4b.** Use communication skills to gain understanding of others' feelings and perspectives.	**2A.5a.** Demonstrate how to express understanding of those who hold different opinions. **2A.5b.** Demonstrate ways to express empathy for others.
B. Recognize individual and group similarities and differences.	**2B.1a.** Describe the ways that people are similar and different. **2B.1b.** Describe positive qualities in others.	**2B.2a.** Identify differences among, and contributions of, various social and cultural groups. **2B.2b.** Demonstrate how to interact positively with those who are different from oneself.	**2B.3a.** Explain how individual, social, and cultural differences may increase vulnerability to bullying and identify ways to address it. **2B.3b.** Analyze the effects of taking action to oppose bullying and/or bias based behavior based on individual and group differences.	**2B.4a.** Analyze the origins and negative effects of stereotyping and prejudice. **2B.4b.** Demonstrate respect for individuals from different social and cultural groups.	**2B.5a.** Evaluate strategies for being respectful of others and opposing stereotyping and prejudice. **2B.5b.** Evaluate how advocacy for the well-being and rights of others contributes to the common good.

A13

Grade Level	Early Elementary (K-3)	Late Elementary (4-5)	Middle School (6-8)	Early HS (9-10)	Late HS (11-12)
C: Use communication and social skills to interact effectively with others.	**2C.1a.** Identify ways to work and play well with others. **2C.1b.** Demonstrate adaptability and appropriate social behavior at school.	**2C.2a.** Describe approaches for making and keeping friends. **2C.2b.** Analyze ways to work effectively in groups.	**2C.3a.** Analyze ways to establish positive relationships with others. **2C.3b.** Demonstrate cooperation and teamwork to promote group effectiveness.	**2C.4a.** Evaluate the effects of requesting support from and providing support to others. **2C.4b.** Evaluate one's contribution in groups as a member and leader.	**2C.5a.** Evaluate the application of communication and social skills in daily interactions with peers, teachers, and families. **2C.5b.** Plan, implement, and evaluate one's participation in a group project.
D. Demonstrate the ability to prevent, manage, and resolve interpersonal conflicts in constructive ways.	**2D.1a.** Identify problems and conflicts commonly experienced by peers. **2D.1b.** Identify approaches to resolving conflicts constructively.	**2D.2a.** Describe causes and consequences of conflicts. **2D.2b.** Apply constructive approaches in resolving conflicts.	**2D.3a.** Evaluate strategies for preventing and resolving interpersonal problems. **2D.3b.** Define unhealthy peer pressure and evaluate strategies for resisting it.	**2D.4a.** Analyze how active listening, "I" statements and other communication strategies help to resolve conflicts. **2D.4b.** Analyze how conflict- resolution skills contribute to work within a group.	**2D.5a.** Evaluate the effects of using collaborative negotiation skills to reach win-win solutions. **2D.5b.** Evaluate current conflict-resolution skills and plan how to improve them.

A14

Goal 3: Demonstrate ethical decision-making skills and responsible behaviors in personal, school, and community contexts.

The ability to make ethical decisions and behave responsibly, taking into account the well-being of others as well as one's own, are essential to benefitting the good of the whole - whether family, peers, colleagues, neighbors, or members of the community at large. It is the foundation of responsible citizenship in a democratic society. Every individual at all life stages needs the capacity to make ethical decisions and solve problems by accurately defining the decisions to be made, being able to generate alternative solutions, anticipate the consequences of each, and having the ability to evaluate and learn from the outcomes of one's decision making.

Grade Level	Early Elementary (K-3)	Late Elementary (4-5)	Middle School (6-8)	Early HS (9-10)	Late HS (11-12)
A: Consider ethical, safety, and societal factors in making decisions.	**3A.1a.** Explain why acts that hurt others are wrong. **3A.1b.** Identify social norms and safety considerations that guide behavior.	**3A.2a.** Demonstrate the ability to respect the rights of self and others. **3A.2b.** Demonstrate knowledge of how social norms affect decision making and behavior.	**3A.3a.** Evaluate how honesty, respect, fairness, and compassion enable one to take the needs of others into account when making decisions. **3A.3b.** Analyze the reasons for school and societal rules.	**3A.4a.** Demonstrate personal responsibility in making ethical decisions. **3A.4b.** Evaluate how social norms and the expectations of different social groups, including dealing with the expectations of those in authority in various settings, influence personal decisions and actions.	**3A.5a.** Apply ethical reasoning to evaluate societal practices. **3A.5b.** Examine how the norms of different societies and cultures influence their members' decisions and behaviors.

A15

Grade Level	Early Elementary (K-3)	Late Elementary (4-5)	Middle School (6-8)	Early HS (9-10)	Late HS (11-12)
B: Apply decision-making skills to deal responsibly with daily academic and social situations.	3B.1a. Identify a range of decisions that students make at school and at home. 3B.1b. Make positive choices when interacting with classmates.	3B.2a. Identify and apply the steps of systematic decision making. 3B.2b. Generate alternative solutions and evaluate their consequences for a range of academic and social situations.	3B.3a. Analyze how decision-making skills have an impact on study habits, academic performance, and interpersonal relationships. 3B.3b. Evaluate strategies for resisting pressures to engage in unsafe or unethical activities.	3B.4a. Evaluate one's personal abilities to gather information, generate possible solutions, and anticipate the consequences of decisions. 3B.4b. Apply decision-making skills to establish responsible interpersonal and intergroup relationships, and work relationships.	3B.5a. Analyze how present decision-making affects college and career choices. 3B.5b. Evaluate how responsible decision making affects interpersonal and group relationships.
C. Contribute to the well-being of one's school and community.	3C.1a. Identify and perform roles that contribute to one's classroom. 3C.1b. Identify and perform roles that contribute to one's family.	3C.2a. Identify and perform roles that contribute to the school community. 3C.2b. Identify and perform roles that contribute to one's local community.	3C.3a. Evaluate one's participation in efforts to address an identified school need. 3C.3b. Evaluate one's participation in efforts to address an identified need in one's local community.	3C.4a. Plan, implement, and evaluate one's participation in activities and organizations that improve school culture and climate. 3C.4b. Plan, implement, and evaluate one's participation in a group effort to contribute to one's local community.	3C.5a. Work cooperatively with others to plan, implement, and evaluate a project to meet an identified school need. 3C.5b. Work cooperatively with others to plan, implement, and evaluate a project that addresses an identified need in the broader community.

A16

P-TECH Professional Skills

NYS P-TECH has identified a set of Professional Skills as those to be demonstrated through the P-TECH experience by every graduate of the program. Mastering these professional skills, combined with meeting the necessary academic and occupational skill requirements for a particular job or position, indicates that the student is ready for a successful transition to work.

The P-TECH Professional Skills are taken into consideration in the design of all Workplace Learning activities, the delivery of instruction in the classroom and other school- or community-based activities. In particular, they serve as the foundation for an assessment of student performance in an authentic Career Preparation Workplace Learning activity, such as a Work Experience or an Internship.

The P-TECH Professional Skills

Personal Traits
Integrity/Ethics
Dependability
Persistence/Maturity
Responsiveness

Group Experience
Negotiation
Teamwork
Diversity
Communication

Problem Solving
Applied Knowledge
Flexibility
Planning
Continuous Improvement

P-TECH Professional Skills

The following section lists each of the P-TECH Professional Skills with performance expectations to be developed and demonstrated through performance in school or community settings, as well as through all Workplace Learning experiences.

Personal Traits

Integrity/Ethics

> Demonstrates honesty. Is trustworthy and ethical. Makes responsible decisions and avoids risky behaviors.

Dependability

> Is punctual and reliable, avoids absenteeism, meets deadlines. Is self-directed, productive and takes ownership of the quality and accuracy of work.

Persistence/Maturity

> Demonstrates willingness and ability to work. Completes tasks as assigned. Knows how to learn.

Responsiveness

> Responds well to supervision and direction. Accepts and applies constructive criticism. Recognizes and reflects workplace norms and culture. Dresses appropriately and avoids the personal use of technology during work hours.

Group Experience

Negotiation

> Resolves conflicts. Proposes solutions.

Teamwork

> Interacts effectively with others. Actively listens and takes initiative. Demonstrates leadership when appropriate. Is respectful of the opinions and contributions of others.

Diversity

> Is comfortable with people of diverse backgrounds. Avoids the use of language or comments that stereotype others.

Communication

> Communicates effectively in English, both verbally and in writing. Is an active listener and able to share ideas.

Problem Solving

Applied Knowledge

> Selects and applies appropriate technologies to complete tasks. Reads with understanding and uses math to analyze and solve problems. Accesses information. Applies occupational and technical knowledge to tasks.

Flexibility

> Adapts to a range of circumstances and is comfortable with change.

Preparation and Planning

> Prepares and plans effectively. Is detail oriented. Manages time and resources to complete tasks.

Continuous Improvement

> Thinks critically. Understands strengths and weaknesses and knows when to ask questions. Reflects on tasks, analyzes processes and suggests improvements. Provides and receives productive feedback.

P-TECH OHM Professional Skills Rubric: Supporting college, career, and citizenship readiness

	Novice (1)	Apprentice (2)	Professional (3)
Personal Accountability	**● Does not always take responsibility for own actions** -Often blames others instead of taking ownership for their own actions (such as making mistakes or missed work) -Requires many reminders to stay on task	**● Takes some responsibility for actions and work** -Will take some responsibility for mistakes and missed work -Requires some reminding to complete tasks	**● Takes full responsibility for actions and work** -Will correct own mistakes and make up any missed work without prompting -Completes tasks on own while also positively influencing peers to do the same -Communicates with staff to consistently exceed academic and behavioral expectations
	● Does not show initiative -Comes to class unprepared -Does not follow directions -Does not seek extra help -Does not make up missing work -Does not use class time productively -Does not contribute on a team -Does not complete corrections and/or resubmissions offered by teacher	**● Mostly shows initiative** -Comes to class prepared and ready to work most of the time -Usually follows directions -Will accept extra help when offered -Follows up on work from absences with prompting -Often productive during class time -Completes work within his/her responsibilities to benefit team when prompted -Student sometimes completes corrections and uses resubmissions offered by teacher	**● Persistently shows initiative** -Comes to class ready to work and always prepared -Follows directions independently -Asks for extra help as needed -Follows up on missed work -Productive during class time while demonstrating leadership skills -Completes all work within his/her responsibilities and will assist others to benefit team -Student always completes corrections and seeks opportunities to resubmit work
	● Disregards feedback -Does not make corrections -Submits original work with same errors -Resubmission of work does not reflect teacher's feedback to improve work -Written work is full of spelling/grammatical errors and does not meet requirements of assignment	**● Considers most feedback** -Usually makes corrections -Makes some adjustments to resubmitted work with minimal errors -Accepts feedback when offered to improve work	**● Applies feedback from staff** -All submitted work includes corrections -Resubmitted work is free of all errors -Seeks feedback to improve work -Student accepts feedback from staff and continues to apply their knowledge to future assignments/behaviors

P-TECH OHM Professional Skills Rubric: Supporting college, career, and citizenship readiness

-Written work is free of all spelling/grammatical errors and thoroughly completes all requirements	-Student initially addresses feedback from the teacher but fails to reflect and learn from mistakes in future assignments -Written work is free of most spelling/grammatical errors and meets requirements	
● **Work/behavior demonstrates a high level of integrity** -Completes authentic work that is free of plagiarism -Staff uses student work samples as an example of high quality work to their peers	● **Work/behavior demonstrates integrity** -Completes authentic work that attempts to avoid plagiarism -Takes ownership of work that requires revisions and is willing to make corrections	● **Work/behavior lacks integrity** -Does not put forth the effort to avoid cheating/plagiarism -Does not take ownership of dishonest work
● **Consistent class attendance** -Always follows call-in policy to notify staff of absence -Always attends class -Consistently makes up missed class time -Always engaged during class with no redirecting required -Makes up all assignments when absent	● **Present most classes** -Attempts to follow call-in policy to notify staff of absence -Regularly comes to class -Attempts to make up missed class time -Often engaged during class with minimal redirecting -Makes up most assignments when absent	● **Misses a significant number of classes** -Does not follow call-in policy to notify staff of absence -Regularly comes to class late -Misses class time -Distracted/unengaged during class -Does not make up assignments when absent
● **Demonstrates determination and grit while setting an example to peers** -Will independently find solutions to persevere when challenged -Exceeds high expectations of staff/rigor of program -Can individually problem solve when faced with adversity -Willing to present in front of class independently	● **Ability to demonstrate determination and grit** -Will attempt to persevere when challenged -Attempts to meet high expectations of staff/rigor of program -Will accept feedback to individually problem solve when faced with adversity -Attempts to present in front of class with prompting from staff	● **Lack of determination and grit** -Easily gives up when challenged -Complains about meeting high expectations of staff/rigor of program -Can not individually problem solve when faced with adversity -Refuses to present in front of class

P-TECH OHM Professional Skills Rubric: Supporting college, career, and citizenship readiness

Communication & Team Operations	(Does not)	(Attempts to)	(Diligently / Proficient)
Participate/collaborate on a team	● **Does not participate/collaborate appropriately on a team** -Gives limited feedback without suggestions for improvement -Perceives feedback as criticism -Communication to team is often negative and/or off topic -Interrupts/dominates discussions while not actively listening to team members -Unwilling to compromise with team members	● **Attempts to participate/collaborate appropriately on a team** -Attempts to give feedback with suggestions for improvement when there is a need -Perceives feedback positively -Communication to team is often productive -Will participate or lead discussions while listening to most team members -Attempts to compromise with team members but avoids conflict	● **Diligently participates/collaborates productively on a team** -Gives feedback with suggestions for improvement while considering input from others on the team -Perceives feedback as a way to improve and applies it to task -Communication to team is always productive to keep the group moving forward on a task -Constantly participates or leads discussions while also listening to all team members -Shows willingness to compromise and respect differences of opinions Offers innovative approaches to a task that promotes higher quality of work
Communicate/advocate for oneself	● **Does not communicate/advocate for oneself in an appropriate/timely manner** -Does not send emails to group members and staff when absent -Will ask for extensions after missing due dates and still not meet deadline if provided by staff -Complains to staff about group members without approaching situations independently or in a timely manner and without solutions -Constantly offers criticism of others or the program without solutions -Will not speak on own behalf to self advocate while depending on others to be their voice	● **Attempts to communicate/advocate for oneself in an appropriate/timely manner** -Usually communicates to group members and staff when absent -Will ask for extensions only as needed before a due date and will follow through with completion of assignment -Will attempt to problem solve among group members and will seek support from staff appropriately as needed -Can appropriately communicate difference of opinion of others or the program and will attempt to provide solutions -Is often the voice of reason in a group and/or can self advocate appropriately	● **Communicates/advocates for oneself in a professional/timely manner** -Always communicates to group members and staff when absent and ensures any missing work is provided for the group to continue making progress -Does not ask for extensions unless under rare dire circumstances and will do so in a timely/appropriate manner -Can problem solve among group members independently -Opinions are productive to better the entirety of the group/program and offers innovative approaches for improvement -Student can appropriately reason with members in a group and/or self advocate appropriately
Contributes on a team	● **Lacks contribution to a team** -Unwilling to present in front of the class with group members	● **Contributes on a team** -Willing to present in front of the class with group members	● **Contributes on a team while demonstrating leadership skills**

P-TECH OHM Professional Skills Rubric: Supporting college, career, and citizenship readiness

Category			
	-Gives up if challenged on a team without communicating to staff -Relies on other students do most of the work in a group, with little to no engagement	-Tries to meet challenges when working on a team while accepting feedback from staff -Attempts to meet requirements of individual role on a team while demonstrating engagement in the task	-Will present in front of the class with group members and make up for missing members or gaps in presentation -Will face challenges head on while seeking feedback from the team to improve overall work -Fulfils all requirements of individual role on a team while being a support to others to benefit the entirety of the group
	● Lacks student engagement -Does not participate in partner/group work -Displays closed off body language (earbuds in, hood up, lack of eye contact) -Requires constant redirection from staff	● Demonstrates student engagement - Participates in partner/group work while relying on peers as well -Displays open body language (smiles, nods, appropriate eye contact) -Does not require redirection from staff	● Exudes engagement -Actively participates in partner/group work by asking questions and making meaningful comments relevant to assigned tasks -Body language is welcoming and reveals a willingness to work with others -Does not require redirection to stay on task; keeps peers on task
Time and Task Management	● Not resourceful -Information is not easily accessed; student constantly depends on staff/peers to provide information -Student does not demonstrate individual problem-solving skills -Constant intervention from staff is required to find information, self regulate, redirect, etc. -Daily task lists, agenda, or calendar not utilized -Requires constant reminders to stay on task	● Attempts to be resourceful -Student makes an attempt to access information independently while utilizing staff/peers for support -Student demonstrates problem-solving skills most of the time with assistance -Some support from staff is required to find information, self regulate, redirect, etc. -Daily task lists, agenda, or calendar are utilized most of the time -Student is seldomly reminded to stay on task	● Independently resourceful and serves as a resource for others -Student independently attempts to access information from various sources to gain information -Student demonstrates problem-solving skills independently -Student is able to seek information, self regulate, redirect, etc. -Daily task lists, agenda, or calendar are utilized to meet deadlines and manage personal time -Student is always on task and prompts peers to do so as well
	● Irresponsible technology use -Technology use is distracting or not well thought out -Does not comply with cell phone policy	●Proper technology use -Technology use is mostly appropriate -Complies with cell phone policy with some reminders	●Responsibly use of technology -Technology use is always appropriate and productive -Complies with cell phone policy without reminders
	●Unable to manage time and stay focused independently	●Able to manage time and stay focused independently	●Manages time and stays focused independently

P-TECH OHM Professional Skills Rubric: Supporting college, career, and citizenship readiness

Category			
	-Often off-task and needs to be redirected -Regularly hands in assignments late, incomplete, blank, or not at all -Does not utilize class time when given the opportunity to finish a task or start homework	-Often on task with little redirection -Regularly hands in assignments -Attempts to utilize class time when given the opportunity to finish a task or start homework with some prompting	-Constantly on task with no redirection -Regularly hands in assignments with a high degree of quality -Will independently utilize class time when given the opportunity to finish a task or start homework
Respect for Self, Others and Community	**● Disregard for self and others** -Prone to interrupt others or be reluctant to engage in conversations -Makes others feel uncomfortable or excluded -Puts down others' ideas or refuses to let others speak -Uninterested in building relationships with peers or adults -Does not try to understand others' points of view or backgrounds -Demonstrates overconfidence; lacks humility and self-control	**● Demonstrates regard for self and others** -Attempts to listen to others and engages in conversations -Makes others feel comfortable or included -Considers others by welcoming them to share ideas -Interested in building relationships with peers or adults -Attempts to understand others' points of view or backgrounds -Demonstrates confidence, humility and self-control	**● Demonstrates high regard for self and others** -Actively listens to others and engages in conversations productively -Makes others feel comfortable or included by asking for input and applying their ideas -Considers others by welcoming them to share ideas and will respectfully challenge various ideas to better the group/task -Relationship builder among peers and adults -Understands and appreciates others' points of view or backgrounds -Demonstrates confidence, humility and self-control that is respected by staff and peers
	● Disregard for school and public spaces -Leaves work areas messy (ie: papers left behind, food, spills, chairs not pushed in) -Common materials are not returned or are wasted	**● Regards school and public spaces** -Leaves work area clean with some prompting -Common materials are returned and student avoids waste	**● Holds a high regard for school and public spaces** -Leaves work area clean and helps others as needed -Common materials are returned in an organized manner and student avoids waste
	● Disregards School Code of Conduct -Uses inappropriate language -Inappropriate physical contact with other students -Disregard for dress code -Receives discipline/DASA referrals	**● Willing to comply with Code of Conduct** -Uses appropriate language -Avoids inappropriate physical contact with other students -Complies with dress code -Rarely receives discipline/DASA referrals	**● Complies with Code of Conduct at all times** -Uses appropriate language that is professional and respectful -Engages with other students in a way that respects physical space -Complies with dress code and appears professional -Never receives discipline/DASA referrals

P-TECH OHM Professional Skills Rubric: Supporting college, career, and citizenship readiness

	● Fails to treat staff, college, and business partners like future employers	● Respects all adults as future employers	● Professional level of respect for all adults
	-Does not use technology/email in a proper manner -Does not measure tone used when addressing adults -Body language is closed off and does not communicate appropriately -Does not engage in workplace experiences to build resume	-Properly utilizes technology/email -Considers tone used when addressing adults -Body language is welcoming and communicates appropriately -Will do what is required to fulfill workplace experiences	-E-mail/technology use is professional at all times -Addresses adults professionally with a friendly tone -Makes positive lasting impressions through appropriate communication and body language -Demonstrates outstanding, quality work during workplace experiences and is recognized by industry partners