ENGINEERING A REAL-WORLD CAREER-CONNECTED LEARNING MODEL

PREPARED BY NS4ED WITH THE SUCCESSFUL PRACTICES NETWORK (SPN)

NS4ed

SPN Successful Practices Network

PARTNERSHIPS SUPPORTING CCL

ABOUT SUCCESSFUL PRACTICES NETWORKS (SPN)

The Successful Practices Network, which recently merged with the National Dropout Prevention Center, is a powerhouse of resources dedicated to educators and communities. After an initial grant from the Bill and Melinda Gates Foundation, Dr. Bill Daggett founded SPN in 2003 with the leadership of Ray McNulty. The nonprofit organization emerged as an expert in developing partnerships with state agencies and education leaders devoted to student-centered projects.

SPN is a not-for-profit organization dedicated to research and services in particular topics, including dropout prevention, trauma skills, career and technical education (CTE), and literacy. Dr. Bill Daggett and SPN believe in "preparing students for their futures, NOT our past." They aspire to improve graduation rates, craft plans, and support work that is unique, equity-focused, and student-centered.

ABOUT NS4ED, LLC.

NS4ed is an educational research and development company dedicated to negotiating education services. NS4ed's mission is to help all students attain successful futures through career exploration. This is achieved through providing effective, vested, engaging sole source solutions in professional development services, customized labor market data, career exploration tools, and mathematics & career-connected learning curricula. NS4ed invests in quality measures to ensure its innovative solutions provide exceptional student experience, comprehensive learning, and support best practices in teaching.

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INTRODUCTION: DEFINING CAREER-CONNECTED LEARNING (CCL)

Employing career-connected learning and redesigning coursework and curricula with a labor market data-informed career lens can make learning meaningful and bring real-life applications into classrooms across the country. The first step in engineering a real-world model of CCL is defining the concept –explaining what CCL is and what CCL is not.

WHAT IS CCL?

According to NS4ed founder and Chief Executive Officer Dr. Joseph L. Goins, when linking "learning with the needs of the workforce, education becomes purposeful" (2022, paragraph 3). Igniting driven, motivated, purpose-filled learners to engage in their studies deeply is an important goal for career-connected learning. NS4ed advocates developing innovative, researched, and holistic career-connected learning programs. By analyzing and processing labor market data and sharing that sortable, easy-to-navigate, valuable information with our educators, students, and local communities, we can define and educate on high-value careers; forecast the direction of the labor market and changing American economy; connect educational programs to jobs (thus providing relevancy); connect education, industry, and community leaders; and support regional economies across the country.

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>
> **Dr. Joseph L. Goins**

Comprehensive career-connected learning programs are enriching, as "CCL is a continuum of experiences that combine career exploration, academic learning, and awareness of high wage/high growth jobs" (NS4ed, 2022b). Well-designed CCL programs should be about ***"connecting students with real-world academic experiences that combine exposure to careers with relevant classroom learning"*** (NS4ed, 2022b). Showing learners how their school studies are used 'on the job' and relate to future success motivates students to persevere with their high school, early college, and postsecondary studies. We need to increase access and scale up CCL programs because building career awareness and opportunity knowledge scaffolding for our learners is valuable, meaningful, and equitable work.

This work builds on the Career Connected Learning (CCL) concept, first introduced in 2012 by the National Center for College & Career Transitions. Essentially, they promote exposing students to real-world work during the K-12 learning process, preparing students for college and career pathways (Meeder & Pawlowski, 2020; NC3T, 2022). Over the last decade, CCL has been studied, and its efficacy has proven promising, especially for stimulating student interest.

Many scholars believe that students develop a more substantial interest in educational content by connecting teaching and learning to the real world and that this is an important motivating factor for student achievement

(Bierly & Smith, 2022; Sheninger, 2021; Daggett, 2021c; Kemple & Willner, 2008; Meeder & Pawlowski, 2020).

In fact, **Bain & Company Partners Chris Bierly and Jennifer Smith** in their recent report that looked at more than 2,200 learners stressed ***"CCL is among the most effective ways to create meaningful opportunity for young people from all backgrounds"*** (2022, paragraphs 14 & 18).

Dr. Bill Daggett, Founder of both the Successful Practices Network (SPN) and the International Center for Leadership in Education (ICLE), and now serving full-time as Executive Chair of SPN and providing leadership to AASA's Learning 2025 initiative, has shown us (through his nationally recognized and adopted Rigor/Relevance FrameworkTM) that ***"higher levels of real-world application provide access to higher levels of academic knowledge and achievement"*** and, he reminds educators, ***"being able to apply knowledge is more important than simply comprehending it"*** (2021c, p. 65). From a similar perspective, educational leader and **ICLE Associate Partner Eric Sheninger claims, *"To prepare students for the world of tomorrow, we must transform their learning today"*** (2021, p. 55). This experienced former principal promotes a "REAL" model (Relevant, Engaging, Authentic, and Lasting) for practicing and applying learning (2021, p. 45). Sheninger also encourages meaningful program assessment and feedback to create a "culture of excellence," these practices can be applied to empowering change and sustaining new CCL efforts and programs (2021a; 2022). Likewise, research scientists **Dr. Martha Abele Mac Iver and Dr. Robert Balfanz** discuss improving instructional practices to motivate and engage, arguing, ***"Helping students to see the relevance of classroom learning for their current lives and future work leads to better performance"*** (2021, p. 61).

Experts Brett Pawlowski and Hans Meeder reason aligning with CCL principles can support sustainable career pathways and preparation for successful careers and life (Meeder & Pawlowski, 2020). As pointed out by the NC3T, CCL has been implemented in different forms for over a decade. They explain the focus of CCL is "to connect learning to the real world, ensuring students can understand academic content in terms that are relevant to them, and providing them with a platform to develop the knowledge, skills, and experiences to help them enter the world after school" (NC3T, 2022). Several studies by the U.S. Department of Education, the National Research Center for Career and Technical Education, MDRC, Education and Employers, and the Association for Career and Technical Education reveal that CCL is an effective model (Meeder & Pawlowski, 2020). This research, **CCL's proven model, and its promise is even more reason to invest in career-connected programs.**

CCL PROGRAMS & CCL ACTIVITIES ARE NOT THE SAME

There are several different forms of career-connected learning (NC3T, 2022; NS4ed, 2022). **It is essential to differentiate between holistic, integrated CCL programs and mere career-connected activities.** While both have the potential to positively impact students by helping them to consider their futures, activities (such as a one-day career fair, job shadow experience, or a guest speaker event) are less impactful because they tend to not link the career exploration activity to the core subject matter, missing the potential for empowering students with relevancy. Activities rarely bring in labor market data, showing students projected industry growth. Additionally, CCL activities often introduce students to limited career options and do so less regularly than a detailed program.

Comprehensive CCL programs integrate a diverse spectrum of career and college options and exploration of perspective pathways, and they also share labor market information. They can be linked and integrated into core curricula or take shape as a single semester or school-year-long program. Often they are designed in a blended manner and involve project-based learning, experiential learning, early college, or internships. Career-connected programs introduce students to career exploration, build career awareness, foster opportunity knowledge, and support increased engagement as learners get excited about their futures and become motivated after learning how classroom content connects to work.

Comprehensive CCL programs benefit students and communities in several ways. The most effective career-connected learning models engage students and achieve real-world application and higher-order thinking through comprehensive CCL programs.

WELL-DESIGNED COMPREHENSIVE CAREER-CONNECTED LEARNING PROGRAMS ARE...

1. Future-Focused and Tied to the Real World;
2. Data-Informed;
3. Career-Focused;
4. Successful at Increasing Career Awareness & Nurturing Opportunity Knowledge;
5. Integrated into Core Curricula;
6. Relevant;
7. Meaningful;
8. and, Motivating.

WHY ENGINEER A REAL-WORLD MODEL OF CCL?

As mentioned in previous NS4ed published writings, the American education system is on the cusp of a career-connected learning revolution. This model is recognized at the federal and state levels, from the US Department of Education's recent "Growing Pathways to Success" Initiative to other similar "Calls to Action" from educational research and public leaders, including Bain & Company's 2022 report "Taking Flight: How to Maximize the Potential of Career-Connected Learning," and numerous state-wide programs (Bierly & Smith, 2022; Huff & NS4ed, 2022; Loyd, 2022). These programs highlight recognition of value, growth, and excitement surrounding career-connected learning. They also highlight the potential for CCL programs to foster equity and inclusion. For instance, when discussing the new initiative, **US DOE Senior Advisor Amy Loyd** describes how the COVID-19 Pandemic has "laid bare longstanding inequities in education" and promotes CCL for all students as a prospective solution. According to Loyd, "***We want all students, not just those fortunate to be in high-quality Career Technical Education (CTE) programs or strong dual enrollment and early college programs, to be on pathways through higher education that lead to rewarding careers***" (2022, paragraph 5). Considering the promise of CCL, the US DOE encourages galvanizing a coalition of educators, employers, and community leaders to "advance this critical work" (Loyd, 2022, paragraph 9).

Applying ICLE's and Daggett's Rigor/ Relevance Framework

For 30 years, educators have been learning from and inspired by Daggett's and ICLE's "Rigor/Relevance Framework" explanation, model, and what has become a regularly adopted education tool (2015, 2016a, 2020b). **Daggett has a famous motto, "*relevance makes rigor possible, and rigor makes life success possible*** (2021c)." Daggett (2021c) explains this phrase in The Evolution of Education. He clarifies, "by making the work we ask our students to do relevant to their lives and their interests, they'll engage in more rigorous thinking and learning tasks (2021c, p. 65)." In short, relevancy matters a great deal.

The importance of making core content, such as algebra and geometry, relevant and meaningful for today's students and tomorrow's workforce cannot be understated. Students transitioning from high school to college and future ***high-value careers*** **(jobs that are projected to grow and are considered high-wage, earning over $35,000 annually)** will need to persist and acquire mathematics skills (NS4ed, 2022b). They need to see the relevance of persevering as the content becomes increasingly challenging, especially to fill the high-demand, growing occupations in science, technology, engineering, and mathematics (STEM). Suppose students fail to see the relevance in middle and high school; they may fall behind and not catch

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>
> **Dr. Bill Daggett**

up (NS4ed, 2022; Weaver, 2022). Furthermore, as Daggett reminds us, a "higher level of real-world application provides access to higher levels of academic knowledge and achievement (2021c, p. 65)." Building on this concept of relevance, scholars **Iver and Balfanz believe students "*need to understand how what they are learning actually matters in the real world*" and that learners "*need a chance to experience the joy of learning*"** (2021, p. 62). Career-connected learning programs are relevant, meaningful, and fun.

This underscores the importance of innovative lessons and programs incorporating real-world applications and connecting content to careers. CCL serves as a bridge between middle and high school academic content and the postsecondary world of work. Through CCL, it is possible to design curricula and lessons that teach core content (including mathematics and science) using examples from specific career cluster pathways, such as Architecture & Construction, Health Science, Information Technology, and Science, Technology, Engineering & Mathematics (STEM), as well as the other dozen industry groups. It also teaches and introduces learners to essential work or employability skills such as teamwork and relationship building, critical thinking, technical/digital literacy, and communications.

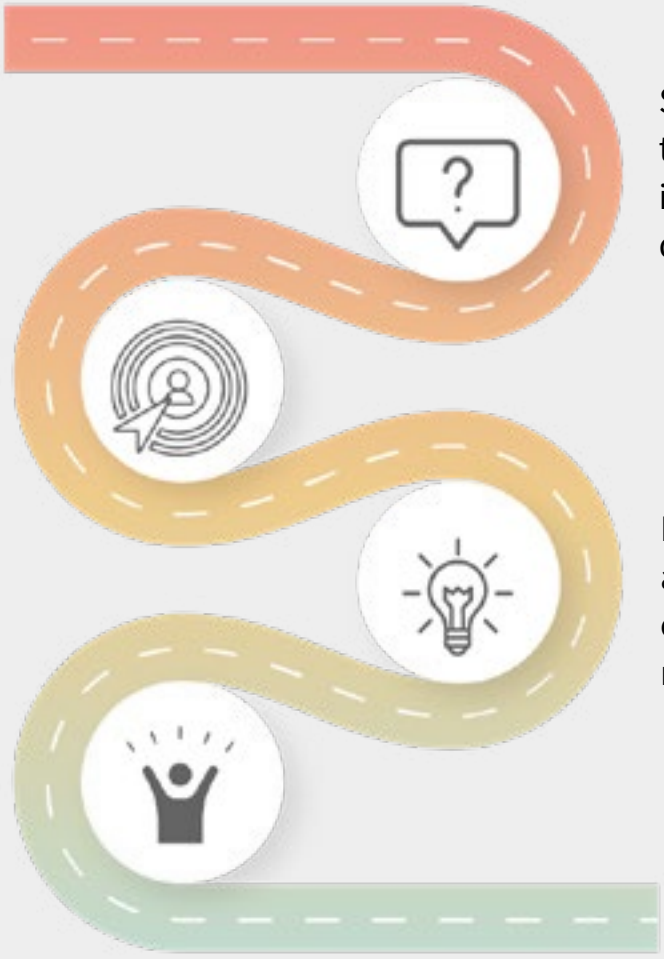
Pursuing a ***high-value career*** can empower students, inspiring them to stick with challenging content, no matter how rigorous the labor and practice problems are. **Finding purpose in learning can take a student from mere knowledge acquisition to completing more challenging problem-solving.** They can practice math and gain degrees in assimilation, application, and adaptation. Students who persist with rigorous math and science in the classroom will succeed in the workplace when they apply it to more complex problems.

When educators connect lessons to careers, students gain career awareness, opportunity knowledge, and can begin to realize their future career pathways (NS4ed & Weaver, 2022d). Additionally, CCL promotes collaboration with local employers and partnerships between educational institutions, community organizations, and employers. Connecting core educational content to careers not only aids student learning but also prepares students for the American job market. Ultimately, postsecondary educators and employers are provided with better-prepared, more well-rounded students and employees.

CCL can also support competency growth. As experienced educational leader Eric Sheninger explains in his recent book *Disruptive Thinking*, fostering growth in competencies aids learners in "translating skills into behaviors that demonstrate what has been learned and mastered" (Sheninger, 2021, p.71-73). He clarifies that "sound pedagogy" competencies can be nurtured and that they are crucial for preparing students for our changing world of work (2021, pgs. 55 & 71). **By supporting the development of competencies, students will "*succeed in the new world of work*;" they will gain the abilities to "*demonstrate the right mix of skills, knowledge, and on-the-job agility*" and become problem-solvers** (Sheninger, 2021, p. 73).

Each of these applications aims to engage students' learning processes deeply.

Help students understand the “why” behind the “what” for powerful outcomes.



Students struggle when they lack clarity & purpose in learning, resulting in disengagement.

Providing relevancy --by answering “Why?”-- results in engagement and is a powerful motivational strategy.

Career-connected learning is an empowering motivator.

Students develop more interest in the instructional content by connecting teaching and learning to the real world. Learners are encouraged to closely explore college and career opportunities that align with their strengths and interests (Kemple & Willner, 2008). **As NS4ed posits, career-connected learning helps students understand the "*why*" behind the "*what*." Students' performance and interest increase when they are provided with tools to make learning relevant and applicable to themselves** (NS4ed & Weaver, 2022d).

CONSTRUCTING AN EFFECTIVE CAREER-CONNECTED LEARNING ENVIRONMENT

Now is the time to "***reimagine education***," claimed the US Secretary of Education, Dr. Miguel Cardona, in their US Department of Education's keynote address for the 2022 Advancing Equity in Career-Connected Education Summit (US DOE, Virtual Summit). Dr. Amy Loyd the US DOE Assistant Secretary for Career, Technical, and Adult Education advocates for career and college readiness preparation for all students because career and college pathways are a "powerful, evidence-and-research-based approach" (Loyd, 2022a).

Scholars regularly recognize that active learning is fostered, and "learning environments are most effective when they elicit effortful cognitive processing from learners and guide them in constructing meaningful relationships between ideas" (Sheninger, 2021, p. 64; Sheninger references deWinstanley & Bjork, 2002; Clark & Mayer, 2008; Mayer, 2011; McDermott et al., 2014). **Let us reimagine how to incorporate CCL programs into core coursework more holistically than before to improve student engagement and aid learners in making meaningful connections.** For instance, Meeder and Pawloski caution, "Historically, our approach to education has been fragmented. In the real world, subjects like science, social studies, and literature are deeply interwoven, but in the classroom, we break them apart, ensuring that these connections are hard to uncover. We cover academic content while rarely highlighting connections to students' experiences or their futures" (2020, p. 14).

Scholars warn that communities need CCL and collaboration, rather than operating in "silos" with K-12 education, postsecondary education, and industry/workforce each separately trying to prepare the same students. The most promising aspect of CCL, no matter its different forms, is the focus on connecting "learning to the real world, ensuring students can understand academic content in terms that are relevant to them, and providing them a platform to develop the knowledge, skills, and experiences to help them enter the world after school" (Meeder & Pawlowski, 2020, p. 14). **Connecting learning to careers and cultivating a "*learning culture*" or an educational environment that prepares students for the next stage or step along their pathway, including looking beyond high school graduation is promising** (Sheninger, 2021, p. 36; Daggett, 2021c, p. 103.).

Daggett emphasizes that many teachers need to rethink the proper question when considering the purpose of education. He argues that the goal of each school year is not to prepare students for the next grade; it is "*to prepare them for successful careers and lives*" (2021c, p. 103).

Daggett's collaboration with AASA and the Learning 2025 initiative has generated myriad innovative best practices being implemented in more than 100 districts across the nation in the critical areas of resources, culture, and social and cognitive learning. The pandemic destabilized systems to the point where leadership, staff, and students alike struggled to find their bearings. AASA's National Network of Demonstration Systems, which evolved from Learning 2025, is lighting the path for all districts nationwide that want to regain their balance and be future-focused once again. These successful and innovative practices will be showcased in Washington, D.C., at the second annual **AASA Learning 2025 National Summit** next June 26-28, 2023.

EMPOWERING LEARNERS BY ANSWERING THE "PROPER QUESTION"

Author Michelle Kulp (2020) discusses the power of asking the right questions to discover purpose and passion. She argues that success is based on asking the right questions and finding clarity in what you are meant to do. She also reminds her readers that renowned brilliant inventor Albert Einstein emphasized the centrality of questions while problem-solving (Kulp, 2020). **Einstein claimed, "*If I had an hour to solve a problem and my life depended on the solution. I would spend the first 55 minutes determining the proper question to ask; for once I know the proper question, I could solve the problem in less than five minutes.*"** Einstein was very passionate about asking questions, which is why we have so many famous quotations from him on the subject (Berger, 2022).

Maybe (like Einstein) the reason students in classes across the country have been asking all these years, "when will I ever use this?" is because they recognize that they need to identify the purpose behind their learning (i.e.. relevancy) to be successful at the task. In this way, students have been asking the "***proper question***."

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Dr. Albert Einstein

The problem is that traditional textbooks and curricula do not adequately illustrate or explain relevancy and real-world application to students. They encourage students to practice and learn concepts without helping the students to connect the idea to the real world and without showing them why the knowledge is necessary.

Context is too important to leave out. **It is essential to reimagine core curricula and to answer the students' proper question, "*when will I ever use this*," before and alongside teaching the concepts.** Therefore, answering "When will I ever use this?" is not a problem; it is the solution.

Cultivating a career-connected learning culture with impactful CCL programs in your district is an innovative and valuable approach.

Borrowing and building on **Sheninger's "REAL learning"** concept, cultivating a CCL culture in schools promotes **relevant, engaging, authentic, and lasting effects** (2021, p. 45). These programs strengthen educational environments that empower students, helping learners recognize relevance in learning and encouraging them to continue asking questions, facilitating "high-level and critical thinking skills" (Sheninger, 2021, p. 49).

To support and sustain an effective and impactful career-connected learning environment that empowers learners, **designing quality new CCL program evaluations is also vital.** Educational leaders in school leadership and curriculum design, Dr. Marie Hubley Alcock and Heidi Hayes Jacobs stress the importance of meaningful quality assessment focused on supporting learners (2017). This is linked especially to new innovative programs. In *Bold Moves for Schools: How We Create Remarkable Learning Environments*, they argue, ***"To ensure that the system fully supports learner motivation, assessment of inventive approaches in the design and running of the school learning environment is critical"*** (2017, p. 175)

Answering "When will I ever use this?" is not a problem; it is the solution. Cultivating a career-connected learning culture with impactful CCL programs in your district is an innovative and valuable approach.

CONCLUSION:
CULTIVATING & SUSTAINING CCL PROGRAMS

Cultivating and sustaining a career-connected learning culture in your district's schools is critical. We recommend developing a carefully engineered comprehensive CCL program.

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EIGHT ELEMENTS OF A WELL-DESIGNED COMPREHENSIVE CCL PROGRAM

1 **Ensure your program is future-focused and tied to the real world.** Discuss career-connected learning programs as a future investment. Share with students and school communities a historical analysis of how the American labor market has changed during the 20th and 21st centuries. Consider historian Steven Mintz's advice and "cultivate a forward-looking mindset that is alert to challenge, strategic, and solution focused" (2022, paragraph 27). Encourage program participants to imagine what jobs will exist in the future and make research-based predictions as to what positions may be obsolete. Incorporate into your CCL program information on transferable work and employability skills. Discuss Sheninger's concept of competencies.

By engineering a CCL program that is future-focused and forward-thinking, educators can align curricula and lessons with workforce needs, partner with regional employers and organizations to create "mutually beneficial career pathways for students from all backgrounds," and incorporate blended project-based and hands-on work experiences (i.e., internships, apprenticeships) for students (Bierly & Smith, 2022, paragraphs 4 & 17). As researchers Bierly and Smith explain, these sorts of exciting, meaningful, and robust CCL programs can open doors and provide opportunities that "broaden the pool of people who have access to the good jobs and careers that will be increasingly plentiful in the years ahead" (2022, paragraph 3 & 19).

2 **Incorporate data into your CCL program.** Inform your students about the "Return On Investment (ROI)" concept and connect that notion to example 2 and 4-year college degrees and associated career pathways. "The 'disconnect' between the job market and education stands in the way of student success as they enter the workplace," argues Goins (2022). Educational leader Dr. Eloy Ortiz Oakley recognizes this 'disconnect' advising, "Use the data that's available to drill down and help both the employer and your program to better serve students" (Loyd, 2022a, paragraph 16). Ensure that your CCL program incorporates regional labor market data. NS4ed advocates for labor market data that is accurate, current, real-time, accessible, custom, and regional. It is also vital to incorporate industry sector equity data. Understanding inequities in the current workforce in a state can allow for better alignment of educational offerings and strengthen the local talent pipeline.

Ensure that your teachers and counselors are provided with professional learning materials, including asynchronous, digital, and micro-learning lessons, that illustrate how to best introduce labor market data to students and demonstrate how to interpret the data. Recommend to educators how to lead critical discussions with their students as they explore career pathways and the connected data. Look closely at state equity data and encourage thoughtful questions about equitable access to careers and racial, ethnic, and gender discrepancies or gaps in industry sectors (NS4ed, 2022c).

3 **Engineer a career-focused program, methodically introducing students to various careers from all 16 career clusters.** CCL programs should introduce the National Career Cluster Framework to all learners. CCL benefits Career Technical Education (CTE) and Early College students, but all students can gain from integrated, holistic career exploration and readiness programs. Be certain teachers and counselors are supported with professional learning and educator resources, clearly defining the **16 different Career Clusters**. Encourage educators to design programs that incorporate a substantial number of diverse career examples.

All students can gain from integrated, hollistic career exploration and readiness programs.

4 **An effective career-focused program will cultivate students' career awareness and nurture growth in their opportunity knowledge.** Be sure to consider how your CCL program will incorporate career exploration that builds understanding. Building career awareness and opportunity knowledge are crucial as they can change a person's life trajectory (NS4ed, 2022d). **Constructivist education theories claim exposure to a subject of inquiry (in this case, careers) creates a scaffolding for students to understand better the range and variety of the topic (i.e., the type of occupations), as well as the related skills and the relevancy of obtaining those skills and the credentials (diploma).** Fostering opportunity knowledge is crucial because it also impacts equitable education. All students need to have access to opportunity knowledge (and underserved or students from low-income families may need this more) of high-value careers and understand how to take their necessary steps on college and career pathways (NS4ed & Weaver, 2022d).

Another way to build career awareness, in addition to exposing students to as many different jobs as possible, is to share authentic career stories with students. CCL programs should incorporate informational interviews, guest speaker presentations (in-person or virtual), ONET/CareerOne stop videos, and other authentic examples of real workers sharing their career story journeys. The Careers2Communities project successfully cultivates career awareness by bringing 300 "Career Story" video recordings into NS4ed's Pathway2Careers™ Program (NS4ed, 2022e).

5 **Career-connected learning should be integrated into core curricula.** CCL programs integrated into core studies are more likely to reach larger student populations. We caution educational leaders to be careful when developing CCL programs. Sometimes these programs are only integrated into CTE or Honors Programs, and this practice can inadvertently leave out segments of your district's student populace. Promote accessibility to your CCL program, as it can "be an opportunity multiplier for students" (Loyd, 2022, paragraphs 3 & 5; Loyd, 2022a, paragraph 6). Select/create a flexible CCL program that can be integrated and connected to core curricula. Ensure that English Language Arts, History, Economics, Math, and Science teachers understand the promise of career-connected learning and how they can incorporate lessons into their courses.

6 **Making and designing CCL programs relevant for today's learners and tomorrow's workers cannot be stressed enough.** Effective CCL programs connect content to a real-world context. In doing so, frequently, the most effective CCL programs will also highlight transferable work or employability skills. Be sure that your learners are exposed to these skills, as work skills 'travel well' and will help students (our future American workforce) handle changes associated with the labor market –those shifts that are forecast and those unforeseen. Soft skills are flexible in that they can support the learner as they enter the workforce and move about changing positions and sometimes moving into different careers (Daggett, 2021c; Sheninger, 2021). Ensure that your CCL program features collaborative teamwork projects, financial literacy lessons, and problem-solving activities.

Teachers, counselors, and administrators must look ahead and beyond their students' high school tenure, reminds Daggett (SmartBrief & NS4ed, 2022, p. 2). SPN advocates preparing middle and high school students to transition from secondary education and beyond to postsecondary education and into the changing workforce. They, like NS4ed, support using career-focused programs designed to re-envision outdated educational models.

7 **Design CCL programs that illustrate and demonstrate how core content is concrete and less abstract; in doing so, the content becomes more meaningful** (NS4ed, 2022). As cited in several studies, when students are provided with tools to make learning relevant and applicable to themselves, their motivation, performance, retention, and interest increase (Malka & Covington, 2005; Jang, 2008; González et al., 2009; Marzano & Pickering, 2011; Yeager & Dweck, 2012; Hulleman et al., 2014; Iver & Belfanz, 2021). In other words, CCL programs make content meaningful. This can impact student attitudes toward learning and how they view themselves academically; as recognized by Dr. Zwiers, students grow, feeling autonomous and self-reliant when they have the opportunity "to use the tools of learning (language, thinking, etc.) to do meaningful things" (Zwiers, 2019, p. 7).

8 **Enthusiastically incorporate comprehensive CCL programs because their ability to motivate empowers your students.** Form a leadership team that will research CCL best practices, brainstorm desired program elements, and engineer an action plan for designing, coordinating, facilitating, and implementing the program. Ensure that educators and students are informed as to the promise of career-connected learning so that they will welcome the new initiative. Provide targeted professional learning and further program training and resources for instructors. Pilot the CCL program and evaluate the program by obtaining frequent feedback from students and educators, as this will be instrumental in how the program develops (Alcock & Jacobs, 2017). In the future, your CCL leadership team will need to reconvene to review diagnostic data and act on feedback. They are encouraged to consider the assessment feedback when creating scalability and recruitment plans.

After your inaugural program, celebrate your new CCL program and the opportunity knowledge and increased engagement it afforded your graduates!

APPENDIX A: PARTNERS SUPPORTING CCL

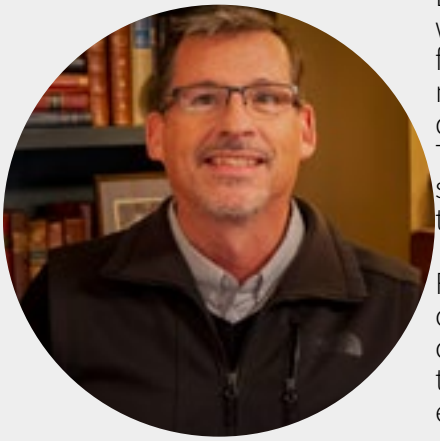
Bill Daggett, EdD

Dr. Bill Daggett is the founder of both the Successful Practices Network (SPN) and the International Center for Leadership in Education (ICLE) (link:). He recently co-chaired the American Association of School Administers (AASA) LEARNING 2025: National Commission for Student-Centered, Equity-Focused, Future-Driven Education and is now leading AASA's National Demonstration Network.

Dr. Daggett, the author of 26 books, is recognized worldwide for his proven ability to move PreK-12 education systems towards more rigorous and relevant skills and knowledge for all students. For 30 years, he has crisscrossed our nation and the industrialized world to effectively lead school reform efforts to prepare students for their future.

Dr. Daggett began his career as a teacher, local administrator, and director of the New York State Education Department. He spends much of his time providing leadership and guidance to the National Dropout Prevention Center and the Career and Technical Education Technical Assistance Center, which are part of the Successful Practices Network. Additionally, he is the creator of the Rigor/Relevance Framework and the Future-Focused Success Framework, which have recently become the cornerstone of the nation's school reform efforts.

Joseph L. Goins, EdD



Dr. Joseph L. Goins's career began as a vocational educator in Tennessee, where he had the opportunity to develop the foundational skills program for learners with the Tennessee Board of Regents (TBR) System. He was nominated for "Teacher of the Year" within the TBR system in 1995 and helped develop the first occupational profiles for the work-ready credential for 26 Technical and 14 Community Colleges. Additionally, Joseph developed a TN statewide primary skills/mathematics curriculum focused on career pathways that were systematically adopted.

For much of Dr. Goins's 30+ year career, he has focused on education and custom, evidence-based solutions in the educational technology industry. His career has brought him a deep understanding of integrating technology into the classroom through resources that promote student achievement, teacher effectiveness, and leadership strategies for administrators.

Dr. Goins is the CEO of an action-based research company, NS4ed, which works closely with policy leaders, companies, schools, teachers, and educators to understand applying best practices and research. Dr. Goins and NS4ed developed the Pathway2Careers™ model that embodies the Career-Connected Learning (CCL) approach. NS4ed is committed to excellence in education, research, equity, inclusion, and giving back.

APPENDIX B: REFERENCES

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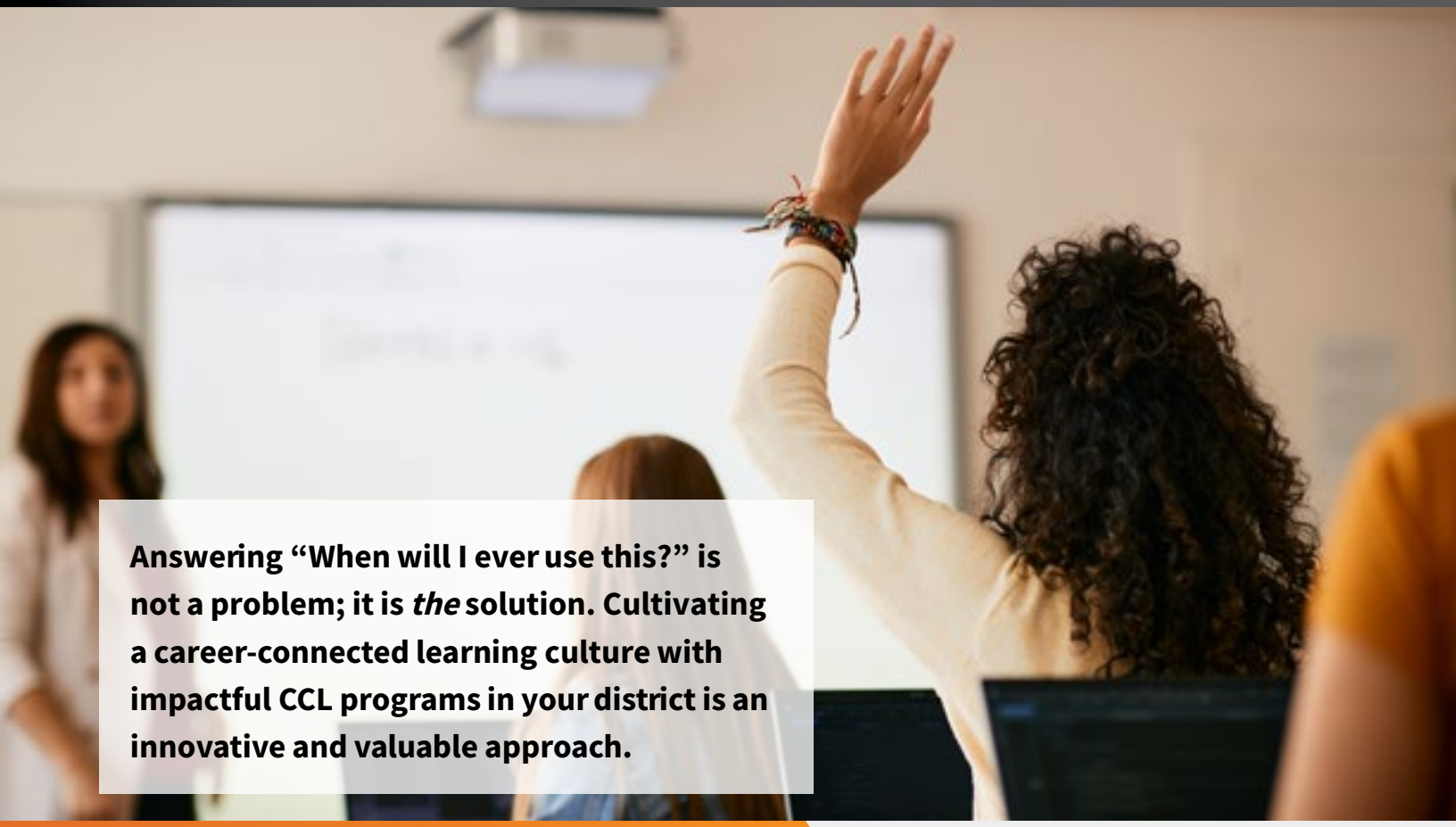
OUR COMMITMENT

Through our commitment to drive results, our partnerships have led us to building comprehensive career and college education solutions. We focus on solutions relevant to education practices and ensure a seamless approach to support career readiness efforts in schools everywhere. Our innovative approach focuses on delivering the best possible solutions to support long-term student success.



Answering "When will I ever use this?" is not a problem; it is *the* solution. Cultivating a career-connected learning culture with impactful CCL programs in your district is an innovative and valuable approach.

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