

Advancing a New Image of CTE Via TEACHER PREPARATION

BY HEATHER BOGGS SASS

There is perhaps no better place to start in advancing a new image of career and technical education (CTE) than by creating the kind of classroom instruction that will prepare students for further learning and the workplace. The quality of our teachers and their capacity to construct rich learning experiences for students represents the “front line” of our work in CTE. Teachers shape the learning experiences that produce competent and confident graduates who are ready to begin their career paths; well-trained graduates are both advocates and evidence that the field is truly living up to a new image.

A New Teacher Induction Model

What do CTE teachers—particularly those coming to teaching from careers in business and industry—need to know and be able to do to meet the challenges of 21st-century instruction? How can they fulfill our mission of preparing students to be truly “college and career ready?” To improve CTE teacher quality and ultimately the quality of CTE programs and their image, the Southern Regional Education Board (SREB) is working in collaboration with the National Research Center for Career and Technical Education (NRCCTE) to develop an induction model for teachers seeking an alternative route to enter the profession. The induction model is based on high-quality professional development and high-quality

support during the first year of teaching, and is designed to increase beginning teachers’ competence, self-efficacy and career commitment. Professional development is designed around four modules: instructional planning, instructional strategies, classroom assessment and classroom management. Support elements include assistance from trained mentors and administrators on site, coaching from the professional development instructor, and participation in an electronic community of practice. The model, once developed, can be used by states, teacher preparation programs and school districts to boost teacher quality.

What Teachers Can Do

Although the induction model is focused on teachers entering the field through alternative routes, our research on what CTE teachers need to know and be able to do for 21st-century instruction is applicable to all CTE teachers. To reshape the image of CTE, we need teachers who can:

Build positive relationships with and among students. We have long understood that teaching is fundamentally a relationship, but the ability to create a classroom environment in which the relationships among teacher and learners enhance everyone’s learning experience is essential. The quality of student-teacher relationships affects student motivation and learning. Students who feel a sense of

belonging in the classroom and a connection to their teachers work harder, persist through learning challenges, and seek to do their best work. Not only does a collaborative classroom support more effective learning, it also teaches students the vital teamwork skills required in modern workplaces. No matter their career path, students will be expected to share ideas, attain common goals, and solve problems with others in the workplace. We owe our students opportunities to learn these essential skills in our CTE classrooms.

To create positive classroom relationships, effective CTE teachers must know their students well—their hopes, dreams and aspirations—by using purposeful strategies to get to know them and make personal connections with them on a regular basis. Teachers must be prepared to ask students to complete personal inventories, spend time talking with students one-on-one, and make connections with students’ families. Building relationships also includes helping students get to know each other, teaching respectful strategies for working together, and modeling how to handle conflicts.

Teachers prepared to build positive relationships are also able to respond to diverse learning needs in the CTE classroom. Although CTE has traditionally served a wide variety of learners, student diversity has never been greater. Effective teachers address these needs by using a variety of teaching strategies to accommo-

High-Quality PRACTICES

date different styles of learning and modify assignments to reflect various learning needs. They also provide extra help and support in the classroom by using small group instruction when other students are productively engaged, meet one-on-one with students to develop learning improvement contracts or monitor progress, and provide struggling students with opportunities to redo work.

Actively engage students in a “vigorous” learning environment. A vigorous learning environment is one that challenges students intellectually and gets them emotionally excited about learning, resulting in a classroom in which there is palpable energy regarding learning. CTE teachers need to be prepared to challenge all students with intellectually demanding work. Using one’s mind well is another essential skill for the modern workplace. Skills in high demand by employers include being able to analyze problems, create ideas and solutions, evaluate processes and products according to criteria, and modify and adapt plans to new situations. These same skills also serve students well in furthering their learning in both formal and informal settings. If CTE is to live up to its image of college and career readiness, its graduates need to be able to think critically.

Effective CTE teachers know how to create assignments and assessments that are intellectually challenging; they use





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application, analysis, synthesis and evaluation skills to address real-world problems and tasks. Although hands-on projects have been a hallmark of CTE classrooms for many years, the challenge to revamp CTE's image requires us to look at the types of projects we have been assigning, and the ways in which we engage students in solving them. Are projects mostly aimed toward one outcome or solution or do they require students to address multiple solutions and justify their responses? Is problem-solving teacher-directed or student-directed?

To get the most impact from project-based learning, CTE teachers must engage students in the problem-solving process with authentic, rigorous problems; require them to research and manage resources to solve the problem; involve them in the development of assessment criteria; and create for them authentic opportunities to present and demonstrate what they have learned.

Recent research points to the importance of using formative assessment to actively engage students in learning. CTE teachers need to be prepared to use a variety of formative assessments effectively. Formative assessment provides the feedback students need to refine their work before final submission, correct learning misconceptions during the learning process, and achieve the learning target. Formative assessment can be informal, a verbal comment or a hand signal that designates a level of understanding, or formal, a checklist or rubric with specific feedback on the student's performance in relation to criteria. In either case, formative assessment can motivate students to continue learning and persist through challenging situations, ultimately improving their achievement. When used well, formative assessment creates emotional energy—celebrating and encouraging students through the learning process.

Connect students to their future.
CTE teachers need to be prepared to help

students see the “big picture” of a career pathway and connect what students learn in their CTE program to their career goals and aspirations. Although CTE teachers have always been focused on the knowledge and skills related to the specific career areas they teach, responding to the challenge of college and career readiness expands that responsibility to include an awareness of the career and educational opportunities within a career pathway, support for the development of an individualized career plan, and a focus on the broad foundational skills—academic and 21st-century skills—that are necessary for success in any field.

Many states require students to have an individual career plan in which they record their career interests, aptitudes and goals, and the knowledge and skills they have achieved that will lead to success in their chosen fields. Such plans are an integral part of a CTE program that prepares students for college and career readiness. As students learn in their programs, CTE teachers need to be able to help students reflect on their learning, apply what they have learned to their career plans, and chart steps to continue on their career pathway—or in some cases, select a new one. Working with counselors, career development specialists and students' family members to support students in career planning will require that CTE teachers thoroughly understand the career development process.

Integrating academic concepts and skills—particularly the literacy and numeracy skills required for entrance into further learning—with CTE content is essential to fulfill the new mission of CTE and sharpen the field's image as a major contributor to students' success in school and beyond. CTE teachers often ask students to use the reading and math skills necessary for the typical tasks of a career area; but a CTE classroom that is preparing students for further learning and the workplace includes a system of challenging reading and math assignments, and

assessments that are aligned with grade-level academic standards. Effective CTE teachers work with academic teachers on a regular basis, understand the intersections and differences between academic and CTE vocabulary, and design assignments and assessments that ask students to apply what they are learning in academic classes to the real-world problems and tasks of their career field.

During classroom instruction, CTE teachers have the potential to connect students to their futures through the authentic projects that also engage students in learning. Well-designed projects provide students with workplace experiences as well as opportunities to interact with the people who do that work. CTE teachers need to interact with business and industry and postsecondary professionals to make sure that major course projects ask students to demonstrate their knowledge and skills in ways that are valuable to further learning and the workplace; for example, producing authentic workplace products, communicating in ways accepted in the field, and making presentations that are workplace-ready. Ultimately, students should have the opportunity to present a final project to an authentic audience at least once a year. CTE teachers can help students develop a portfolio of their authentic learning experiences as evidence of their readiness for further learning and the workplace.

Reshaping CTE's Image Begins in the Classroom

SREB's CTE Teacher Preparation Project is designed to support alternatively certified CTE teachers in entering and succeeding in the field. What CTE teachers need to know and be able to do to fulfill the new mission of CTE—preparing students for further learning and the workplace—is central to the design of this induction model. Through this project, we have learned important lessons about the skills for entering CTE teachers that have implications for CTE instruction as

a whole. If CTE teachers are prepared to build positive relationships with and among students in the classroom, actively engage students in vigorous learning environments, and connect students to their futures, CTE will go a long way toward shaping its image as the premier educational opportunity to promote college and career readiness. **I**

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