

A photograph of a vocational classroom. In the background, several students and instructors are working with large industrial machines, possibly CNC mills. The room has wooden walls and shelves with various items. In the foreground, a large, empty workbench is visible. The text 'ACCELERATING CTE STUDENT SUCCESS' is overlaid on the image.

ACCELERATING CTE STUDENT SUCCESS

The Role of Team Teaching & Supplemental Instruction

The success of JFF's Accelerating Opportunity (AO) program, which helped adult learners gain better education and training, has spurred community college leaders in Kansas and Kentucky to take steps to keep key components of AO going. College leaders in both states, in partnership with JFF, saw an opportunity to expand the AO model of team teaching, supplemental instruction, and supportive services beyond adult basic education students to meet the needs of low-skilled learners and others in career and technical education (CTE) programs. This work, called Accelerating CTE and funded by the ECMC Foundation, seeks to address a major challenge that many CTE students face: not completing a career or education program due to low academic skills and a lack of preparation for college-level coursework. This report presents initial observations on the implementation of team teaching and supplemental instruction in career pathways programs that are part of the Accelerating CTE program. Overall, the colleges, instructors, and students involved in Accelerating CTE report that team teaching and supplemental instruction *are increasing student success* in the classroom.

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JOBS FOR THE FUTURE

Both team teaching and supplemental instruction require community colleges to work differently and create new expectations for instructors, staff, and students. This report will discuss how team teaching and supplemental instruction enhance the classroom experience for teachers as well as students. The report also highlights the work of five community colleges and their approaches for implementing team teaching and supplemental instruction to identify common experiences and practices that may prove useful in improving CTE student success. The research is drawn from data collected for the Accelerating CTE evaluation, including interviews with project leads at individual colleges, instructor and staff surveys, and student surveys over the first 18 months of the project.

TEAM TEACHING

Changing Approaches in the Classroom

In most college classrooms, one instructor is responsible for both teaching content and responding to students during and outside of class. Team teaching changes the college classroom experience by providing additional professional support as students participate in learning activities. As shown in the box on page 4, six approaches to team teaching are implemented in the AO initiative.¹ It is important to note that there is no “right way” to approach team

About Accelerating Opportunity

Accelerating Opportunity (AO) was a multi-year community college reform initiative developed and managed by JFF. The initiative focused on policy, program, and systems change that enables low-skilled adults to successfully advance from adult basic education to technical pathways in high-demand fields. Through participation in AO, over 85 community colleges in 7 states built pathways that accelerated students to attain high-demand credentials by integrating basic skills instruction and technical education. JFF provided the participating states with technical assistance and coaching that was tailored to their implementation plans. This support included guidance on pathway implementation, financing, and policy alignment. The AO Evaluation, led by Urban Institute, found that, overall, AO helped participants with low academic skills earn more credentials from community college programs than similar non-AO students. AO students also often received more credentials while taking fewer credits than comparison students.

teaching; rather, instructors determine the best set of strategies for their classroom and students.

While college leaders were most likely to identify one approach when describing team teaching on their campus, the instructors and staff who responded to the evaluation survey reported that they combined elements of several approaches, depending on the content and the needs of their students. The most common approach was the monitoring teacher model (used by 85 percent of survey respondents²), a role described by one college leader as an “embedded tutor.” While colleges may reference the team teacher as a tutor, in reality the individual is often an adult or developmental education professional with extensive experience in the field. In Accelerating CTE, colleges typically schedule team teachers to participate in 25–50 percent of class time each week—down from 100 percent of the time, which many colleges implemented under their original AO initiative. This shift has been driven, in part, by the need to efficiently

allocate limited resources, as well as the demands of the coursework and the needs of students.

Accelerating CTE college leaders believe that team teaching makes a positive difference for their students. Instructors and staff who were surveyed overwhelmingly agree (91 percent) that team teaching makes a difference in how well students perform in their classes. Team teaching approaches make two key changes in the classroom:

Changing students’ classroom experiences

by providing them with direct access to multiple perspectives on course content and study skills

Changing how instructors and teachers approach their work

including an emphasis on increasing students’ comfort levels with asking questions and engaging with challenging material



Changing Students' Classroom Experiences

Preliminary feedback from students and college personnel found that team teaching offers students a different and more effective classroom experience. With two teachers, the classroom environment is more engaging, and students with experience in a team taught class often self-select into additional team taught courses. Instructors and staff shared these thoughts:

“I have multiple sections with similar students. The sections with the team teacher are more successful. I am able to give more opportunities to practice skills, and, with both of us in the room, more instant feedback is available to students.”

“I become a voice for the quiet students. I can ask the questions they are afraid to ask. I also help those same students with comprehension.”

“My students will usually ask me for help the moment they have a question instead of stopping the instructor and asking for help in front of the entire class.”

Students appear to agree with these sentiments. About 34 percent of students surveyed in the first three semesters of the project reported that they could have benefited from more team taught classes, while 19 percent said the “right” amount of team teaching was provided. Virtually no students (fewer than 2 percent) said

DEFINING TEAM TEACHING APPROACHES

Among the Accelerating CTE colleges, three approaches are most commonly implemented:

- ▶ **Monitoring Teacher** (85 percent of instructor and staff survey respondents) One teacher assumes responsibility for instructing the entire class. The other teacher circulates the room, watching and monitoring student understanding and behavior.
- ▶ **Complementary-Supportive Teaching** (52 percent) One teacher is responsible for teaching the content. The other teacher takes charge of providing follow-up activities on related topics or study skills.
- ▶ **Collaborative Teaching** (17 percent)
Team teachers work together to teach the material by exchanging and discussing ideas in front of students. The course uses group-learning techniques, such as small-group work, student-led discussion, and joint test taking.

Less commonly used approaches (less than 10 percent) at these colleges are:

- ▶ **Traditional Team Teaching** Two or more teachers actively share the instruction of the content and skills in the same classroom at the same time. Each teacher performs a different but equally important instructional task.
- ▶ **Parallel Instruction** The class is divided into two groups, and each teacher is responsible for teaching the same material to their group.
- ▶ **Differentiated Split Class** The class is divided into instructor-led smaller groups according to learning needs.

they did not benefit in some way from the team teaching approach at their college. As one student noted: *“I really appreciated the effort that the instructors put into teaching, and for having patience when a student didn’t understand something. Very pleased.”* Another student shared: *“It’s great to see instructors and professors with such passion for sharing their knowledge.”*

Changing How Instructors & Teachers Approach Their Work

Many instructors (72 percent) revealed that they have changed their approach to teaching as a result of participating in the team teaching environment. This change was due in part because of the collaboration required for effective team teaching. The approach itself typically requires joint planning time and regular check-ins. Thirty-five percent of the instructors and staff surveyed connect daily or weekly with their team teaching partner, and 43 percent connect as needed. As one survey respondent noted: *“I have to be in constant communication with the other teacher.”* Another instructor shared: *“I really like the team teaching part. I think it adds a lot to a class, and in classes that are not team taught, I miss having another person to collaborate with.”*

SUPPLEMENTAL INSTRUCTION

Extending Beyond the Classroom

Supplemental instruction is an academic support offered outside of the regular classroom that provides students with additional opportunities to build and practice skills introduced in class. This instruction may take a variety of forms, depending on the college, instructor, or course requirements. It may include extra class sessions, small-group instruction, and individual student tutoring. This instruction is also an important support for students with low academic skills who may need additional instruction in language or math to succeed in a college-level program.

While team teaching is important, college personnel also identified supplemental instruction as having a significant impact on student success (89 percent). Supplemental instruction in the Accelerating CTE model includes a variety of requirements, types of instruction, and frequency, as shown in the boxes below. Instructors and staff were most likely to offer regular supplemental classes once per week (71 percent), followed by one-on-one sessions (60 percent) and small-group meetings (50 percent).

“I look at the whole process of teaching differently as I weigh on my team teacher to provide feedback ...”

—Accelerating CTE Instructor

Colleges and instructors determine student eligibility to participate in supplemental instruction. Box 1 below identifies common eligibility policies across the participating colleges, based on input from surveyed instructors and staff.

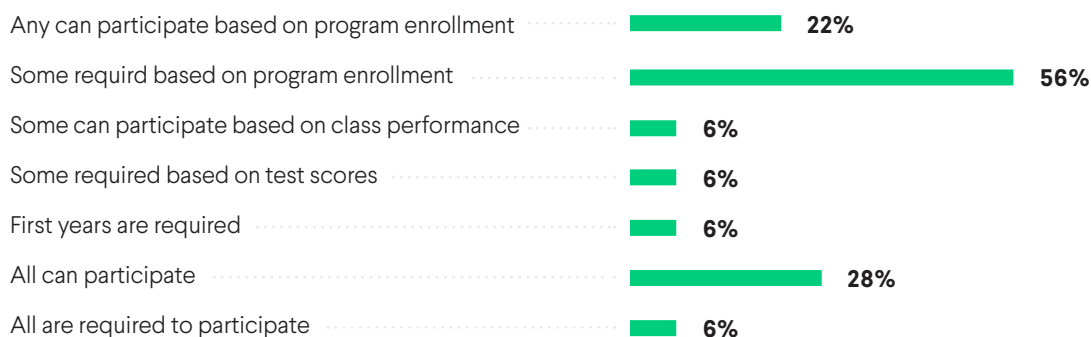
The second box provides detail from the student survey on the student participation in supplemental instruction by type and frequency.

Approximately half of the instructors and staff surveyed identified the difference they believe supplemental instruction

makes for their students. Among the benefits they observed was that the instruction “*provides identified student supports that are effective.*” One instructor said: “*I have seen higher scores and greater understanding of the subject.*”

Another staff member noted, however: “*The students view this as work that they have to do. If we left it optional, I don’t think that they would all participate. But the impact is that the students are becoming more proficient in math and becoming better students.*”

Common Eligibility Requirements for Participation in Supplemental Instruction*



*Share of surveyed college instructors and staff (%) who report particular eligibility requirements for student participation in supplemental instruction.

Student Participation in Supplemental Instruction*

Type of Instruction

- ▶ One-on-one tutoring or instruction (29%)
- ▶ Meeting with an instructor or tutor in small groups (24%)
- ▶ Meeting with a coach, advisor, or navigator (23%)
- ▶ Other: online tutoring or support, extra class sessions (13%)

Frequency of Instruction

- ▶ A few times per week (58%)
- ▶ Once per month or less often (32%)
- ▶ A few times per month (21%)
- ▶ Daily (11%)

*Share of surveyed students (%) who report participation in supplemental instruction.

In terms of alignment with course topics, most supplemental instructors said that sessions were tied to program outcomes and recently covered or upcoming course material. Several also said that the supplemental sessions are student driven, with students choosing to focus on areas where they are struggling in class.

More than half of student survey respondents reported that they participated in supplemental instruction, with some students participating in multiple types of instruction at different frequencies. Approximately 40 percent of students reported that they received the “right” amount of extra assistance and tutoring during their Accelerating CTE courses, while 35 percent felt they could have benefited from additional support. As one student noted, *“I feel the instructors go above and beyond what is expected of them,”* while another said that the supplemental instruction provides *“more time to process the information.”*

BUILDING COLLEGE CAPACITY FOR TEAM TEACHING AND SUPPLEMENTAL INSTRUCTION

The Accelerating CTE model is a change from traditional instructional models, and it takes time for colleges to build the capacity to deliver the program. However, it is promising that the majority of instructors and staff surveyed (61 percent) had participated in professional

development on team teaching strategies. For instructors and staff, the most challenging aspects of implementing team teaching are: finding the right balance between roles (27 percent), understanding the content of the course (23 percent), and communicating with students about the approach (18 percent). In implementing supplemental instruction requirements, instructors and staff cited scheduling (40 percent), student engagement and attendance (27 percent), and coordination with course instructors (20 percent) as the most challenging factors.

College leaders were most likely to cite staffing logistics as the primary challenge to implementing team teaching and supplemental instruction approaches. Scheduling, availability, turnover, and “fit” all contribute to the staffing challenge. Fit is particularly important because team teachers enter “a marriage,” and it can be challenging to find a pair who mesh well in terms of communication and work styles. One college leader noted that the relationship between the instructor and support coach evolves over time as they become more comfortable in their roles and with the material, so there is a benefit to trying to sustain successful collaborations across multiple semesters. Several colleges report more demand for team teachers and success coaches as word spreads about the initiative. However, budget and staffing constraints make it difficult to meet that demand.

CONCLUSIONS AND FUTURE WORK

This report presents initial observations on the implementation of team teaching and supplemental instruction in career pathways programs that are part of the Accelerating CTE program. Overall, the colleges, instructors, and students involved in Accelerating CTE report that team teaching and supplemental instruction are increasing student success in the classroom. Colleges that are interested in implementing similar approaches can benefit from these findings, particularly around developing capacity for these approaches and in communicating with students and instructors about the value and intended outcomes.

To develop capacity for team teaching and supplemental instruction, colleges should:

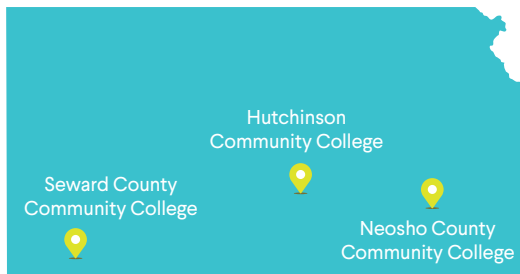
- ▶ Communicate the intent and purpose of the team teaching approach with faculty, program coordinators, and others so that it aligns with the college's strategic goals
- ▶ Pair teachers based on complementary teaching styles and approaches to student support, while providing professional development in team teaching and collaborative approaches in the classroom
- ▶ Provide time for planning and coordinating activities for team teaching pairs and supplemental instructors

To effectively engage students in classrooms that are team taught, as well as supplemental instruction opportunities, colleges should:

- ▶ Share information about course and program success, differentiating outcomes from students who participated in traditional classrooms without supplemental opportunities and those who were in team taught courses and regularly engaged in supplemental instruction
- ▶ Solicit student input on learning styles and challenges to highlight opportunities in and outside of the classroom to adapt instructional approaches to meet their needs
- ▶ Consider marketing supplemental instruction as a regular course component, rather than an optional activity, to increase student participation

Because each college has taken a different approach to the Accelerating CTE model components and the pathways that are targeted, the exploratory evaluation seeks to document what is happening at each college and how the outcomes of participating students compare to students in the same pathways before the program was implemented. Future research on the Accelerating CTE program will examine interim and final outcomes, share additional findings from student surveys, and identify challenges and opportunities for replicating and scaling the approach.

Accelerating CTE College Profiles



KANSAS



KENTUCKY

West Kentucky Community and Technical College

Local Program Name

[Accelerate You!](#)

Targeted Pathways

Health science technology, computerized manufacturing and machining, electrical technology, and industrial maintenance technology

Team Teaching and Supplemental Instruction Approaches

West Kentucky Community and Technical College in Paducah describes its team teaching approach as an “embedded tutor” model. Similar to the monitoring teacher approach, the college’s “Success Coaches” are teachers in adult education and other instructional support staff. They are embedded in math classes and at least one other core course per pathway. The Success Coach typically

attends at least one class per week and leads the weekly one-hour supplemental instruction class. Students with low college placement scores are required to take the supplemental class, which is listed on their official course schedule for the semester. Success Coaches are also available for individual student support, as are other college resources, such as the math center.

In the regular classroom, Success Coaches may lead mini-lessons on study skills or textbook reading comprehension. Most often, however, they circulate among students to check comprehension and offer immediate clarification and support. In the supplemental instruction class, the Coaches’ weekly agenda may include a mix of academic, technical, and employability skills practice, as well as content review and reinforcement activities based on the course syllabus. Supplemental content is also geared to the particular skill needs of the students and the questions they bring to class each week.

More information is available at:
<https://westkentucky.kctcs.edu/>



Seward County Community College

Local Program Name

Accelerating Opportunity—Kansas (AO-K)

Targeted Pathways

Emergency medical technician, health care, welding, machining, phlebotomy, process technology, and truck driving

Team Teaching and Supplemental Instruction Approaches

Seward County Community College in Kansas is unique among the participating Accelerating CTE colleges in its focus on English as a Second Language (ESL) and dual language programs, driven by the significant share of its student population who are native Spanish speakers (approximately 72 percent in the 2017–18 school year). Seward describes its team teaching approach as a traditional model that pairs an adult education instructor with a CTE instructor in the classroom approximately 25 percent of the time. In some pathways, such as health care, the team teaching model more closely aligned to the complementary-supportive approach to meet curricula requirements. The college also developed a bilingual algebra class that is 100 percent team taught. Based on a successful pilot program in the fall 2017 semester, that course will become a regular offering in the college's course catalog.

Supplemental instruction at Seward is primarily provided through Friday study

hall sessions led by the adult education instructor. Study hall sessions are required for AO-K participants and open to other students enrolled in the targeted pathways. Students in AO-K are asked to sign a non-binding agreement to attend classes and supplemental instruction in return for the program covering tuition, books, and fees at 100 percent.

More information is available at:

<https://www.sccc.edu/web/mycampus/home>



Hutchinson Community College

Local Program Name

AO-K

Targeted Pathways

Welding, heating ventilation air conditioning (HVAC), and nursing

Team Teaching and Supplemental Instruction Approaches

Hutchinson Community College in Kansas describes its team teaching approach as primarily using the complementary model. The lead instructor in the classroom is responsible for teaching the CTE content, while the AO coach observes students' behavior, including how they take notes and ask questions. The coach often offers guidance by stating: "If I was a student in this class, this is what I would do." The coach also helps students with basic skills, especially in math. The college prioritizes its AO-K approach to provide in-class

supports; approximately 25 percent of class time is team taught.

Supplemental instruction is offered before and after class, with students meeting in study groups on a voluntary basis. Students build strong connections to the AO coach and encourage others to take advantage of the support the coach offers. Instructors also encourage participation by identifying the specific challenges a student faces and the supports that are available through study groups as well as the college's Adult Education Center. The AO coach also works closely with the college's transition coordinator, who is based in the workforce office, to provide wraparound services for adult education students.

More information is available at:
<http://www.hutchcc.edu/>



Southeast Kentucky Community and Technical College

Local Program Name

AOKY

Targeted Pathways

Medical assisting and electrical technology

Team Teaching and Supplemental Instruction Approaches

Southeast Kentucky Community and Technical College describes its team teaching approach as an “institutionalized

partnership” model, similar to the monitoring teacher approach. Team teaching is comprised of one full-time adult education instructor who teams up with CTE instructors in the classroom. Team teachers are in the classroom about 50 percent of the time in the electronics and fiber-optics courses and between 75 and 100 percent in the medical assisting courses. The role of the team teacher involves planning learning outcomes with the CTE instructor and then helping to interpret the content delivered in the classroom from the student perspective, often stopping to reinforce a point made by the CTE instructor or engaging students in a “sidebar” to further explain the content.

At Southeast, the structure of supplemental instruction varies based on the pathway. Overall, supplemental instruction is scheduled twice a week for up to two hours. While supplemental instruction is optional, a majority of students take advantage of the assistance. According to the instructors, many of the students who do attend benefit as much from the non-academic support, such as positive affirmations about their ability to do the work and that they are “college material,” as the academic support.

More information is available at:
<https://southeast.kctcs.edu/>



Neosho County Community College

Local Program Name

AO-K

Targeted Pathways

Welding and nursing

Team Teaching and Supplemental Instruction Approaches

Neosho County Community College in Kansas describes its team teaching approach as a monitoring teacher model. The lead instructor in the classroom is responsible for teaching the CTE content, while the support teacher focuses on basic academic skills and employability skills, such as mock interviews and appropriate workplace behavior. The support teacher also monitors student comprehension of course materials and helps the CTE instructor with course pacing and review, as needed, to improve student performance in class. Beyond academics, the support teacher also helps students with scheduling and personal challenges that may interfere with attendance and course completion. The support teacher is in the classroom for 50–100 percent of the class time, depending on the pathway.

At Neosho, the structure of supplemental instruction also varies, depending on the class and pathway. Students in the welding pathway are offered a supplemental

instruction period in the hour before their welding class starts. Most students view this as part of the regular class, and attendance is strong. Students in the nursing pathway make their own arrangements with the support teacher for supplemental instruction. All students are encouraged to take advantage of the Adult Education Center on campus.

More information is available at:

<http://www.neosho.edu/>

ENDNOTES

1. For more information on team teaching, see McDonnell, R. Transformational Teaching: A Team Approach. Jobs for the Future, 2016. <http://www.jff.org/sites/default/files/publications/materials/Transformational%20Teaching%20091516.pdf>
2. A total of 27 instructors and college staff completed the implementation survey in fall 2017 across four colleges.
3. A total of 133 students have completed a survey across three semesters: 36 in fall 2016, 47 in spring 2017, and 50 in fall 2017.

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