



Achieve and State CTE Directors: Integrating the Common Core State Standards and Career Technical Education

The Common Core State Standards (CCSS), new educational standards in Mathematics and English Language Arts/Literacy, have been adopted by 46 states in an effort to increase the rigor of education for all students. As states and districts begin to implement the CCSS, teachers will likely need to redesign their lessons and classroom activities to ensure that course content is aligned to the CCSS. Achieve and the National Association of State Directors of Career Technical Education Consortium (NASDCTEc) have joined to pilot a project that helps educators address this challenge by facilitating the creation of sample classroom lessons and tools, also called instructional tasks, that are aligned to the CCSS and can be used in both mathematics and Career Technical Education (CTE) courses.

The purpose of the project is to guide CTE and mathematics educators as they integrate real-world examples and exercises into classroom instruction that is tied to the CCSS. Likewise, it allows CTE educators to inject rigorous mathematics into their courses. The protocol developed by Achieve brings together cross-discipline teams of instructors to develop rigorous instructional tasks in both mathematics and CTE.

Through an iterative process, teachers design their tasks based on the appropriate standards, rate the alignment of the task to content and performance expectations, and modify the tasks, if necessary, to create stronger alignment in these areas. Subject Matter Experts, experienced professionals and industry representatives in the fields of mathematics and CTE, then validate the finished work to ensure that education and industry expectations are met.

The instructional tasks also integrate a set of complimentary CTE-focused standards -- the National Career Clusters Knowledge and Skills Statements -- into the lessons. Those Knowledge and Skills Statements are industry-validated expectations of what students should know and be able to do after completing instruction in a career program area. Integration of both the CCSS and Knowledge and Skills Statements allow for a comprehensive approach to rigorous, real-world learning.

For example, an instructional task designed to teach a student to meet standards in geometric methods, proportional relationships, and technical drawings would provide an example of framing a house as a real-world problem for a student to solve. The instructional task identifies all of the CCSS and Knowledge and Skills Statements that a student would meet while solving this problem. The project, piloted in Illinois, Nebraska, and New Jersey, has yielded instructional tasks in specific CTE areas (also known as Career Clusters™) that include: Design/Pre-Construction in the Architecture and Construction Career Cluster™; Food and Nutrition, and Agribusiness, in the Agriculture, Food and Natural Resources Career Cluster™; and Diagnostic Services in the Health Sciences Career Cluster™.

Kate Blossveren, Associate Director of Strategic Communications and Outreach at Achieve, says that creating context in the instructional process is a key element of supporting the expectations of the CCSS. This project and the resulting instructional tasks can be replicated in states and provide an opportunity to engage the instructors in a cross-disciplinary way. The engagement of educators is critical to implementing broader strategies for student achievement and school improvement efforts across the country.

In Illinois, Mark Williams, CTE State Director, is spearheading the effort through the Design and Pre-Construction Career Pathway. He and his staff recently piloted the project at a workshop for teachers, and he was impressed with the results. "We see the advent of the Common Core as the perfect opportunity to bring core content and career technical educators into a conversation about rigorous content and credible, real world application of that content," Williams said. "Each participant walks away with a greater appreciation for the academic content, why it matters, and the contribution each teacher can make to its transmission."

In the future, Illinois aspires for CTE teachers to develop their own tasks that meaningfully reflect the grade-level math standards.

The Nebraska Department of Education also chose to further strengthen academic content in CTE courses through this approach. Rich Katt, State Director of Nebraska Career Education, stated that “We were particularly interested in learning the process as conducted by Achieve to align technical content and academic content. We wanted to replicate the effort in all our courses.” Though teachers found the process challenging, Katt said they were pleased with the outcome and were able to implement the projects in their classrooms. Nebraska plans to continue the development of more projects and replication in other areas to strengthen alignment with the CCSS.

Next Steps

After the sample instructional tasks are validated by Subject Matter Experts they will be made available on www.careertech.org and www.achieve.org. Achieve and NASDCTEc will also submit the tasks to national CCSS resource Web sites, such as www.oercommons.org, so educators across the country will have access to these valuable resources.

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