

NOCTI Spotlight Series

Fall 2017

Continuing the Success Story: Diving into Pre-/Post-Test Data

One of the challenges in teaching is determining students' strengths and challenges during the learning process. The concept of reflective teaching is certainly not new in education, but in many cases, it is often overlooked and underutilized in the Career and Technical Education (CTE) setting. Many CTE programs across the country utilize the pre-test concept to measure growth and achievement to support the reflective teaching strategy.

Across the country, teachers are utilizing pre-test reports such as NOCTI's Competency Report to see a powerful snapshot of the entire class, as well as individual student performance. This snapshot can promote discussion surrounding possible adjustments within the curriculum and instruction to meet the students' needs as well as support quality instructional delivery.

Students can use their individual competency report to highlight areas where they excel and to pinpoint areas where they struggle. Engaging students in exploring their pre-test results can lead to meaningful interaction between the teacher and student and serve as a foundation for creating goals and improvement plans. Additional benefits can be recognized by incorporating NOCTI Study

Guides into the students' personal learning plans between pre- and post-test administration. Working together, teachers and students can use these tools to help build student confidence and knowledge in preparation for program completion, post-test administration, and meeting their college and career readiness goals.

This powerful one-two punch approach involving the teacher and the student sets the stage for improved growth in curriculum, instruction, and achievement within any CTE program. NOCTI is a key partner in this effort, providing students and teachers with some of the best reflective teaching data in the realm of CTE through its comprehensive score report packages.

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So, how are pre-test results being used in the classroom? Below is one of many examples of ways in which teachers are incorporating pre-testing. We also share the takeaways and feedback from one teacher's experience as shared with MAX Teaching, a national literacy initiative focused on CTE that excels in classroom modeling and embedded coaching techniques that allow teachers to gain critical knowledge in a professional development setting. The MAX Teaching analysis method was created to identify strengths and challenge areas within the curriculum that, if addressed, would improve the delivery of instruction for current and future students. NOCTI scoring data serves as the foundation for professional development workshops facilitated by MAX Teaching, in which educators explore and learn the value of analyzing data for improvement purposes.

Analyzing the Data

Professional development workshops and data-focused training provides teachers with tools and strategies to examine student data and make sense of it, and then to use that knowledge to support making effective changes in their program.

Our teacher example noted that the test data for her class was very interesting; pre-test results showed that of 26 students tested, 17 students scored below 80 percent and only nine students scored above 80 percent. However, when comparing that information to post-test results she found a significant increase, in that only three students scored below 80 percent and 23 scored above 80 percent. Interestingly, the three students with scores below 80 percent were close, with scores of 72, 78, and 79. She had set a class goal of 85 percent for the post-test score and was happy to note that 21 of 26 students



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achieved that goal. Other notable takeaways include the highest pre-test score within this group of participants of 90 percent improved to 97.5 percent and 15 of the 26 students scored 90 percent or higher from only one pre-test. Analyzing the data allowed her to highlight gains and successes and share those successes with program stakeholders such as school administration, parents and guardians, and post-secondary and industry partners!

Finding Patterns and Recognizing Trends

A deeper look at the data can show interesting trends, which can also inform curriculum improvement, instructional methods, and lesson planning. Circling back to our teacher example, we can note that the teacher found it interesting to pinpoint which individual student scores and group averages for the various standards and competencies stayed the same, increased, or decreased between the pre- and post-test administration and over time, noting that scores decreased very infrequently. For

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standards and competencies, the low gains or decreases seemed to be where student pre-test scores were 80 percent or higher. One possible reason for this result is that students did not focus their studying on areas where they scored 80 percent or higher on the pre-test. It was also interesting that these students' post-test scores were fairly static between pre- and post-testing, where the lower scoring pre-test areas skyrocketed. The teacher noted it was very rewarding to see evidence that the students' individual plans and prep work really made a difference.

Student Improvement

Analyzing data, pinpointing areas for improvement, creating action plans, and implementing those plans can support a learning environment where students are engaged and can make great strides in the knowledge they retain. Using reflective teaching strategies often results in teachers receiving positive feedback from their students. In the example provided earlier, the teacher indicated that students thanked her

for giving them extra work in the areas where they felt they needed additional help! The students recognized that the teacher was listening to them and was working to meet their individual needs. In the end, students taking their early state board exams soon after taking their NOCTI credentialing assessment achieved success. The students indicated that taking NOCTI pre- and post-tests and taking the time to actively engage in the prep work helped in preparing for the state exam.

To find out more about how your school and students can use data to improve student achievement, sign up for our Spotlight Series webinar: Pre-Testing Data at Work! Register for this Wednesday, October 11th at 3:00pm EST webinar at

To learn more about NOCTI,
visit www.nocti.org

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visit www.maxteaching.com

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