Professional Learning Transforms Math Classrooms in West Virginia

K-12 Professional Learning Success

“The math Content Academies from Carnegie Learning effectively transformed the educational culture.”

Cabell County Schools Demographics:

- **Grade Level:** Pre-K - 12
- **Enrollment:** 11,875
- **Race:** 82.8% White, 7.8% Two or more races, 6.8% Black or African American, 1.5% Hispanic/Latino, 0.9% Asian or Asian Pacific Islander, 0.2% American Indian or Alaska Native
- **Economically disadvantaged:** 35.3%
- **English learners:** 33.31%

Challenges:

- Classrooms were teacher-centered
- New state administration’s emphasis on data-driven decision-making

Solutions:

- Professional learning services
  - Content Academies
  - On-Site Coaching and Support
  - The National Institute

Populations Served:

- K-12 math educators

Results:

- Shift to student-centered classrooms
- More data-driven decisions in math classrooms
- Average rating of Content Academy workshops: 9.7/10
- Average rating of facilitators: 9.8/10
- Average rating of recommendation likelihood: 9.7/10
- 98% of participants said content learned was useful
Cabell County Schools are located in Huntington, the second-largest city in West Virginia. Across 19 elementary schools, four middle schools, and two high schools, approximately 355 math educators teach nearly 12,000 students.

Since 2017, Cabell County Schools have partnered with the Carnegie Learning professional learning team and seen a significant impact.

The math education culture has transformed from teacher-centered to student-centered learning, the district has bolstered its capacity to make data-driven decisions in the math classroom, and teachers have consistently given sky-high ratings on their professional learning experiences.

**Challenge: Shifting from Teacher-Centered to Student-Centered**

Lisa Burris, Academic Math Specialist for the district’s middle schools, was committed to shifting math education at Cabell County Schools from being teacher-centered to student-centered. But paradigm shifts are never easy. The right professional learning was critical.

“Carnegie Learning’s professional learning services stood out from others,” Mrs. Burris states, “mainly because it’s founded on evidence-based research and a deep understanding of effective teaching. This along with their data-driven approach to inform instructional decisions made the decision easy.”

Three professional learning offerings have helped Cabell County Schools reach their goals: Content Academies, Onsite Coaching and Support, and The National Institute.

**Solution 1: Content Academies**

Over the past six years, Cabell County Schools’ K-12 math teachers have attended Content Academies, which are intensive, multi-day workshops where educators learn by doing.

Mrs. Burris credits Content Academies for transitioning classrooms from being teacher-centered to student-centered.

“The math Content Academies from Carnegie Learning effectively transformed the educational culture,” she states. “They created classrooms that prioritize active learning, problem-solving, and personalized instruction. And the results have been enhanced student engagement, motivation, and academic achievement.”

Academy topics that Cabell County Schools have chosen include proportional reasoning, early number concepts, early fraction concepts, decimal sense and operations, exploring functions, addition and subtraction, and geometric concepts.

In addition to these specific content topics, Academy facilitators, who are former educators, also cover pedagogy and facilitation strategies.

Teachers who have participated in Content Academies have given rave reviews and astronomically high ratings on workshops, facilitators, how likely they would recommend them to colleagues, and the usefulness of what they learned.

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Participants</th>
<th>Overall Rating for Academy</th>
<th>Overall Rating for Facilitator</th>
<th>How Likely to Recommend to a Colleague</th>
<th>Agreeing that they will be able to incorporate what they learned into their daily work</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td>71</td>
<td>9.6/10</td>
<td>9.7/10</td>
<td>9.5/10</td>
<td>100%</td>
</tr>
<tr>
<td>2020</td>
<td>54</td>
<td>9.7/10</td>
<td>9.8/10</td>
<td>9.7/10</td>
<td>96.3%</td>
</tr>
<tr>
<td>2021</td>
<td>36</td>
<td>9.8/10</td>
<td>9.9/10</td>
<td>9.7/10</td>
<td>97.2%</td>
</tr>
<tr>
<td>2022</td>
<td>32</td>
<td>9.9/10</td>
<td>9.9/10</td>
<td>9.9/10</td>
<td>100%</td>
</tr>
<tr>
<td>2019-2022</td>
<td>191</td>
<td>9.7/10</td>
<td>9.8/10</td>
<td>9.7/10</td>
<td>98%</td>
</tr>
</tbody>
</table>
As high as these ratings are, Mrs. Burris is not surprised to see them.

“Having personally participated in these Academies, I witnessed firsthand the high level of engagement and excitement among our teachers,” she states. “The elementary teachers especially would say things like, ‘Oh, gosh! We’ve got to have more of this!’ It was encouraging to see that they were really into it.”

The fact that Content Academies are evidence-based and data-driven helped the district meet goals set by the new state administration when Cabell County was choosing a professional learning partner.

Mrs. Burris recounts, “Of course, we were doing data analysis, but then, the new administration that came in when we were doing the adoption was really focused on data. So it kind of pushed us more into the data-driven aspect of it. And since our county prioritizes data-driven approaches, we’ve had Carnegie Learning help us bolster our capacity to effectively utilize data in decision-making processes in our math classrooms.”

**Solution 2: Onsite Coaching and Support**

Educators were excited to start centering students instead of teachers—but they realized they lacked the curricular resources to support this change in classroom practices. So, in 2019, they began implementing Carnegie Learning’s Middle School Math Solution, which is designed for student-centered learning.

That year, professional learning services expanded to include onsite coaching and support, which has been pivotal in building student-centered classrooms.

“The challenge has been changing the mindset of the educators to move towards that more student-centered classroom,” Ms. Burris recollects. “That first year [of implementation] was really challenging. So the in-classroom coaching from Carnegie Learning was the biggest resource I felt that we had to make that shift.”

Onsite coaching and support is a highly customizable service that Carnegie Learning coaches tailor to the needs of each district. At Cabell County Schools, coaches worked side-by-side with 24 middle school math teachers to:

- Support student-centered learning and collaborative classrooms.
- Provide individual and group coaching to support continuous growth and improvement.
- Maximize success for both teachers and students by supporting the Middle School Math Solution implementation and ensuring fidelity.

Mrs. Burris shares, “Without a doubt, I firmly believe that the continuous in-classroom coaching support from Carnegie Learning has played a crucial role in the success of implementing the curriculum in our county.”

The elementary teachers especially would say things like, ‘Oh, gosh! We’ve got to have more of this!’

Lisa Burris
Academic Math Specialist
Cabell County Middle Schools
Solution 3: The National Institute

Finally, since 2018, teachers and administrators at Cabell County Schools have attended The National Institute (TNI), our annual summer professional learning event.

According to Mrs. Burris, “TNI reinforced the best practices introduced during the math Content Academies and onsite coaching by going deeper into the concepts and instructional strategies teachers had learned. And it’s had a profound impact on the culture shift from teacher-centered to student-centered learning.”

The power of TNI’s impact is evident in the reactions of those who have attended.

Teri Booten, a 6th grade teacher, shares, “The speakers gave me a whole lot of ‘Wow!’ moments.”

Mrs. Burris shares what she heard from the teachers she sent: “They loved it, I mean they came back so excited! And they’re still using things they were taught at TNI, even today.”

The Future

Cabell County Schools have made huge strides in transforming the culture of math education from being teacher-centered to student-centered in partnership with our professional learning team.

As the district continues to build teacher capacity and keep students engaged in the classroom, Mrs. Burris and her team are preparing their students to become future leaders and change-makers—and maybe even some educators who will pay it forward one day!