MDC is an Obsession for One North Carolina Teacher

Claudia Rodriguez sums up her excitement about the Mathematics Design Collaborative (MDC) training with one word — obsessed. “I’m obsessed with the FALs,” the North Asheboro Middle School mathematics teacher explains, referencing the formative assessment lessons she learned how to implement during MDC training. “The FALs are really so rich in content — in math content and precision — that I love it!”

Rodriguez has implemented six FALs since attending the initial training for MDC in August 2015, not all of which were designed for middle school. She recalls experiencing the Interpreting Algebraic Expressions FAL during her initial training. “This is for high school, but we did it in the training, I saw the distributive property,” Rodriguez said. Though her students were seventh-graders, she thought they could do the lesson. “And they were really, really into the math — the algebra. They felt smart and capable.”

Lesson Learned

Early in the implementation of MDC, Rodriguez became so excited about the FALs that she decided to implement two different lessons the same day – one in seventh grade and one in eighth grade.

She cautions teachers about trying two or more different FALs the same day. “It was really hard, said Rodriguez. “I said ’Next time, I’m going to do only one each time.’”

Shift in Instruction

Rodriguez believes the tools and strategies she learned during MDC trainings have shifted her instructional practices. “I thought I was good,” she said. “I thought I was doing a good job. But I felt like something was missing. When I started the FALs, I thought ‘Oh, my gosh! This is what I was looking for!’”

Rodriguez said the formative assessment lessons helped her see how effective questioning strategies can have an impact on students’ learning. Prior to MDC, she toiled over what type of questions to ask students to move their thinking forward.

Then she realized that allowing students to struggle productively has an impact on student behavior. Students now look to each other more as instructional leaders in the class. “The kids always say, ‘Don’t call her; she’s not going to give us the answer. She’s
going to ask another question,” Rodriguez said. **Her students now talk to each other and problem solve together. They no longer look for her to give them the answer. Instead, they struggle together to figure out the solution to a problem.**

**Student Engagement and Teacher Growth**

Rodriguez believes her instructional decisions greatly impact whether students learn and are engaged in her classroom. “That’s my motto – If the kids don’t learn, it’s my fault,” she said. “It’s the way we deliver the lesson that matters.”

Candace Call, the principal of North Asheboro Middle School, believes Rodriguez’s instructional practices increase student engagement as well as help Rodriguez grow professionally. “Student engagement has always been a strength of Mrs. Rodriguez’s lessons. MDC has helped increase the level of student engagement in her class,” Call said. “I believe MDC provided Mrs. Rodriguez with the motivation to push herself even harder as a math teacher, even though she had just been recognized as the district’s Teacher of the Year.”

**Looking at the Numbers**

Below are data for six FALs implemented by Rodriguez. The pre- and post-lesson assessment numbers are the results of teachers judging students’ understanding of math concepts embedded in each FAL. Each student is scored by the teacher on a scale of 0-3, with 3 = understanding, 2 = some understanding, 1= little to no understanding and 0 = no response.

The results indicate that students increased their level of assessment in all of these FALs. For example, in the Positive & Negative Numbers FAL shown first in the table, the average student increased from 1.46 (pre-lesson) to 2.1 (post-lesson).

**Student Growth: Pre- and Post-Lesson Assessment Data**

<table>
<thead>
<tr>
<th>Name of FAL</th>
<th>Average Pre-Lesson Assessment</th>
<th>Average Post-Lesson Assessment</th>
<th>Average Growth Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive &amp; Negative Numbers</td>
<td>1.46</td>
<td>2.11</td>
<td>.65</td>
</tr>
<tr>
<td>Multiplying &amp; Dividing Fractions</td>
<td>1.01</td>
<td>1.6</td>
<td>.59</td>
</tr>
<tr>
<td>Interpreting Algebraic Expressions</td>
<td>1.84</td>
<td>2.68</td>
<td>.84</td>
</tr>
<tr>
<td>Solving Linear Equations</td>
<td>1.41</td>
<td>2.51</td>
<td>1.1</td>
</tr>
<tr>
<td>Classifying Proportion &amp; Nonproportion</td>
<td>1.97</td>
<td>2.56</td>
<td>.59</td>
</tr>
<tr>
<td>Percent of Increase &amp; Decrease</td>
<td>1.95</td>
<td>2.69</td>
<td>.74</td>
</tr>
</tbody>
</table>
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