MATHEMATICS SPECIALIST CONFERENCE

2016 Special Report

The Center for Mathematics and Science Education began hosting an annual Mathematics Specialist Conference in the Fall of 2011. The purpose of this conference is to provide opportunities for educators who serve their schools or districts as mathematics specialists across the state of Mississippi to come together to learn from experts in the field of mathematics education and to learn from each other.

"This conference was very insightful. The presenters were great! I got some great info and resources to share. These were based on best practices and not just something random and cute."

~2016 conference participant

"We need elementary school mathematics specialists, elementary classroom teachers who know and understand mathematics and can effectively mentor their colleagues."

~Dr. Franscis (Skip) Fennell, Professor, McDaniel College

Mathematics specialists often manage a variety of titles and responsibilities. This conference was designed to support the mathematics specialist, mathematics coach, curriculum coordinator, lead teacher, administrator and other school and district personnel who work directly with other teachers to improve mathematics teaching and learning within their environment. Since 2011, we have welcomed over 320 participants from 46 counties across Mississippi.

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Many schools and districts across the state have begun to employ mathematics education leaders to work in a variety of positions. These leaders, known as mathematics specialists, play an integral role meeting the needs of both students and teachers in their environment. Some mathematics specialists are district level personnel, some are school level personnel and some are active classroom teachers. Regardless of the location of their service, their roles are the same. They are charged with working directly with other teachers to improve mathematics teaching and learning at their schools or districts.

Many of these professionals were chosen to become instructional leaders based on their exemplary performance in the classroom. However, there is currently no degree program or certification process in our state to prepare these exemplary teachers to become effective teacher leaders.

The CMSE saw this as a need in our state and began to organize this conference as a way to provide professional development to these teacher leaders and to help them to better understand their role and impact as a mathematics specialist.

Our first conference was held in the Fall of 2011 by personally inviting 25 mathematics teacher leaders from across North Mississippi to join us for a full-day forum on what it means to be a mathematics specialist. Since then, we have hosted this conference each year with attendance growing from that initial 25 invited guests to as many as 90 registered participants. Additionally, our program offerings have grown from single sessions for all attendees to now offering choices of concurrent breakout sessions along with a nationally-known keynote speaker and annual policy and curriculum updates from the Mississippi Department of Education.
Emerging research on the work of mathematics specialists is showing a positive impact on both teachers and students in schools across the country. Most elementary teachers are trained in general education methodologies and lack the depth of knowledge and research-based pedagogical strategies specific to effective mathematics instruction. Whereas middle and high school teachers have a well-rounded understanding of the mathematics content, many have not experienced the hands-on, investigative teaching strategies that the new standards expect them to employ. Mathematics specialists can provide the content and pedagogical coaching to aid teachers in developing these essential skills that will have lasting impacts on student achievement.

The CMSE works very closely with area teachers through the Professional Development Division. The DEEP Learning Communities Project, funded through the Mississippi Department of Education, has gathered evidence from classrooms across North Mississippi. While the project is on-going, initial observations indicate a greater impact on the teaching strategies and student engagement in mathematics classes within schools where a mathematics specialist is present. Based on this evidence, the CMSE is taking steps to investigate the impact of mathematics specialists further.

As outlined in the table below, the impact of the annual CMSE Mathematics Specialist Conference has grown over the years. Initially, this conference attracted educators from all levels, including classroom teachers. Over time, the audience has begun to narrow down to those educators who truly serve their districts in a leadership capacity and work directly with classroom teachers. To date, we have welcomed 328 participants from 46 Mississippi counties, as well as participants from Tennessee, Alabama and North Carolina. Our goal is to reach teachers and teacher leaders from every region of the state.

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Presenters</th>
<th>Number of Sessions</th>
<th>Number of Participants</th>
<th>Number of MS Counties Represented</th>
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<td>2011</td>
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<td>5</td>
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<td>12</td>
<td>19</td>
<td>73</td>
<td>24</td>
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*In 2015, the conference was moved from the fall to the spring.
Conference Future

As we begin planning for future conferences, the CMSE is planning to establish a Mississippi Mathematics Specialist Network that will become a resource for Mathematics Specialists across our state. Through this network, we hope to connect teacher leaders from across the state with experts in the field of mathematics education, share resources on best practices, and become the “hub” for accessing information and research related to the impact that mathematics specialists have on mathematics teaching and learning.

“Please, please, please continue to offer opportunities like this! This is the type of PD teachers need to bring MS and the nation to the top!”
~past conference participant

For more information about the Annual CMSE Mathematics Specialist Conference and other teacher professional development opportunities offered through the CMSE, contact Dr. Julie James, Professional Development Coordinator, or visit our website at umcmse.com.