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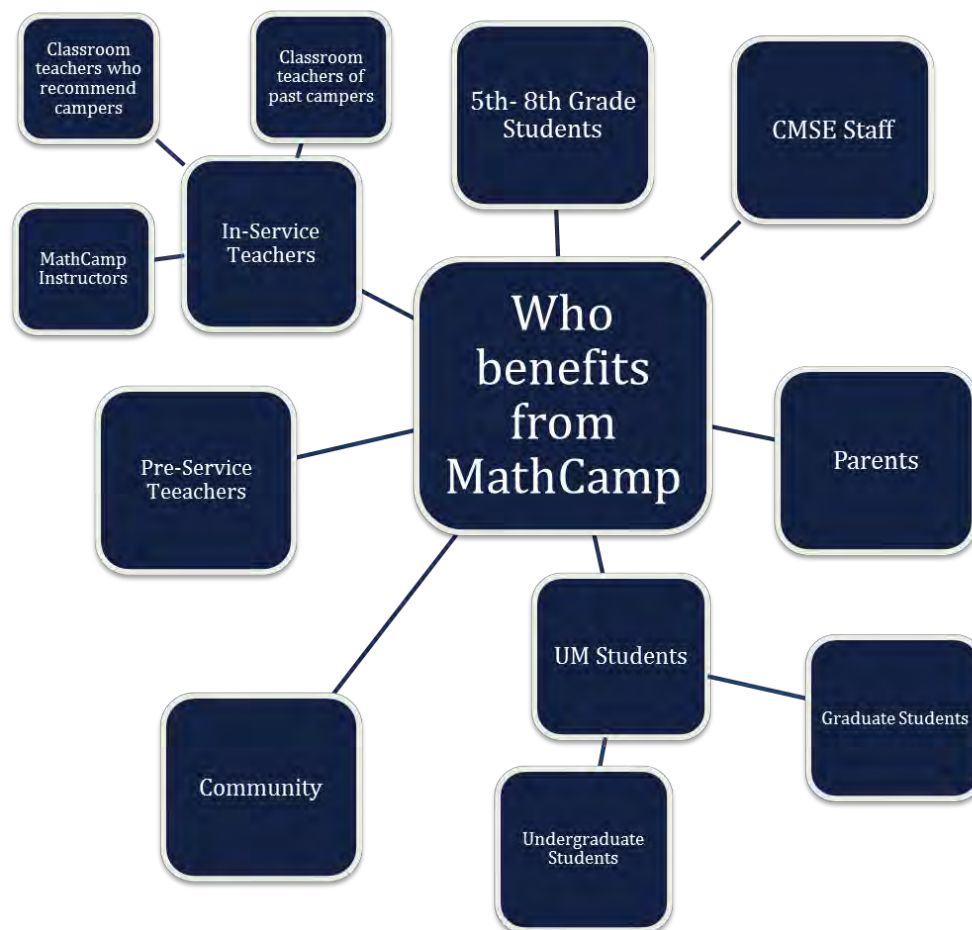
CENTER FOR MATHEMATICS AND SCIENCE EDUCATION

MathCamp Special Report

Summer 2014 Volume VIII

MathCamp, hosted by the Center for Mathematics & Science Education (CMSE) at the University of Mississippi, is a five day, four night camp designed for middle school students who show a significant need for a positive learning experience and a deeper understanding of concepts in mathematics and science.

This program reaches a variety of audiences:



Dr. John O'Haver, Director | Dr. Alice Steimle, Associate Director

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REACHING OUT

Meet McCala, first year camper:

McCala is a rising 5th grade student who “doesn’t really like” math, but LOVES reading and Language Arts. Her teacher recommended her to MathCamp so that she could see math from a different perspective, and hopefully form a newfound affinity for it. After camp we asked McCala to reflect on her experience: *“Before I came to MathCamp I was looking forward to spending time with my friend who was also going, but I wasn’t really sure of what to expect as far as the day-to-day activities. I didn’t hate math, but math was certainly not my favorite. Since going to MathCamp I am starting to actually ‘get’ the problems we are given. Also, I have realized that math CAN be fun, and just like the things I love about reading, math too can tell a story!”*

Meet Anna Grace, alumni camper:

Anna Grace is a rising 6th grade student who has attended MathCamp for the past two years, first as a new camper and most recently as an Alumni Camper. When Anna Grace found out that she was nominated for MathCamp, she wasn’t overly excited, since she has never been a math lover. However, she took the chance, came to camp, and quickly realized that the reality of math was much different than her perception. We asked Anna Grace to explain how MathCamp and Alumni MathCamp had changed her outlook on math: *“It is no secret that math is not my favorite. In fact, I don’t know that I will ever LIKE math, but, I don’t hate it anymore. Coming to MathCamp showed me different ways to look at things, like fractions, that were confusing to me in the classroom. Plus, when I was invited back to Alumni Camp, that really helped to boost my confidence level in math. I finally really understand fractions, and working hands on with math really made a difference in my ability to understand. I have thoroughly enjoyed these experiences, and hope that I am able to continue to attend these type of camps.”*

REACHING

Meet Maren, former camper:

Maren is a senior in high school and is on track to graduate as the salutatorian of her class. In 2007, Maren was one of the first students to attend the MathCamp program hosted by the CMSE. As a home school student at the time, Maren wasn’t a big fan of math. She didn’t get it, and it didn’t interest her the way that other subjects did. We asked Maren to reflect on her experience in the MathCamp program, and to share with us how her path changed because of it: *“I didn’t like math when I was younger. Since I was home-schooled it was basically me reading a book and working out the problems. I wasn’t a fan. I was given the opportunity to attend MathCamp at the CMSE and was excited to go, but not because of the math. I had a friend who was going with me and we got to stay in the dorms. After my first MathCamp I started to find a new enjoyment for math, and after the second one, I was hooked! MathCamp had a significant role in shaping me into who I am today. I am attending Ole Miss next fall, and will be pursuing a Chemical Engineering degree. I feel confident in saying that without this opportunity, I would be going in a different direction.”*

Meet Brian, first year instructor:

As a first year Graduate Research Fellow at the CMSE, Brian had never experienced MathCamp as an instructor. Having taught in local schools, he was familiar with the program as a teacher who had recommended students but wasn't sure what to expect as an instructor. This opportunity gave Brian a different perspective on the camp, as well as an opportunity to work with the campers. When asked to reflect on his week of instruction, Brian said: *"As a first year Alumni MathCamp Instructor, I was able to collaborate with my colleagues in a no-pressure atmosphere. In my work with the campers, I was able to put learning theories and best practice research in mathematics to action. By working with campers that I initially knew little about, any influence of biases of students' backgrounds, ability levels, or disposition to mathematics was erased, leaving the sole focus on each camper's personal math journey."*

Meet Efia, veteran instructor:

Efia is a former teacher who is in her fourth year as a Graduate Research Fellow at the CMSE. Each summer, Efia has the opportunity to take off her graduate student cap, and put back on the teaching cap as an instructor for the MathCamp programs. This opportunity renews her love for teaching and reminds her of why she is pursuing higher education. When asked to describe her summer experiences with the MathCamp program, Efia stated: *"Being out of the classroom is hard. Sometimes it calls into question your credibility or your ability to relate to the real world in which teachers are living day to day. From teaching math camp, I'm able to successfully put research into practice so that students, other teachers, parents, and pre-service teachers all have the option to see what research-based teaching and learning looks like.*

This type of work constantly reminds me of why I became a teacher and more specifically why I chose the field of mathematics."

FURTHER

Meet Alice, Associate Director, CMSE:

Dr. Alice Steimle is the Associate Director of the CMSE. In the spring of 2007, Dr. Steimle along with the director, Dr. John O'Haver, created the concept of MathCamp. Some elements camp had an immediate impact, as students' perceptions of math and science changed, and they were thrilled to have the opportunity to return as alumni campers the following years. Other measures of impact have taken time to collect. As of September 1, 2014, 124 former campers are now college-aged. Of these students 27% chose to enroll at the University of Mississippi, and 38% of those enrolled majored in a STEM field, with an additional 2 students choosing to major in mathematics. With so many benefits for those involved – from students, to research fellows, to the teachers making the recommendations – the success of this program continues to grow. When asked to reflect on the program and how it got its start, where the program is, and where she would like to see the program go, Dr. Steimle stated, *"The vision for a program that would allow students the opportunity to view mathematics as fun and engaging has always been there, but to see the MathCamp program grow into something much more has been very rewarding. Each summer we have been able to grow from summers past, and offer an even more rewarding program than we have hosted before. This program has not only helped students in math, it has shaped the lives of many instructors, parents and students by giving them a chance to love STEM, and allowing them to reach beyond what they ever thought possible."*

REACHING BEYOND

MathCamp Impact

Year	Students Recommended	New Campers	Alumni Campers	Return Percentage	Percentage Receiving Free/Reduced Lunch	Female Attendees
2007	87	40	-	-	52.5%	34
2008	172	69	20	50%	Data not available	52
2009	180	71	36	52.2%	59.2%	53
2010	272	73	41	57.7%	69.9%	64
2011	191	80	51	69.9%	67.5%	72
		22 (traveling camp)				
2012	194	77	33	41.3%	76.6%	53
2013	177	73	44	57.1%	71.2%	64
2014	165	62	40	54.8%	71.0%	46

MathCamp offers rewards to all those involved. The selection process for the campers is unique. Teachers are asked to nominate students based on the criteria that the student shows potential in mathematics, but for whatever reason is not reaching that potential. The campers are rewarded with a week of fun that they didn't expect and leave with confidence that they may not have had prior to attending. Instructors have the distinct pleasure of touching a child's life in a way they may not have had an opportunity to before. The teachers in the schools reap the benefits as their students return to the classroom excited about mathematics. The staff of the CMSE is rewarded by the overwhelming words of thanks as well as the hugs that are a reminder of what a difference a week has made.

For more information on this program as well as all of the programs offered by the CMSE, contact Susan Peterson, CMSE's K-12 STEM Outreach Coordinator or visit our website: www.olemiss.edu/cmse

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