



**Mathematically Connected Communities (MC²)
Common Core State Standards for Mathematics (CCSSM)
Summer 2012 Academies**

Participant Evaluations

**New Mexico State University
October 2012**



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BACKGROUND

Mathematically Connected Communities (MC²) conducted week-long professional development academies at eight sites around New Mexico during summer 2012. These sites were Alamogordo, Albuquerque, Artesia, Farmington, Gallup, Las Cruces, Las Vegas, and Los Lunas. The focus of the professional development was the Common Core State Standards for Mathematics (CCSSM).

The project evaluator worked in conjunction with members of the MC² development team to design two different evaluations to measure the effectiveness of the academies both quantitatively and qualitatively. The evaluations were developed to reflect the goals of the academies and to help the MC² staff more closely examine their practices to better provide services to the educators they serve.

Summative Evaluation Instrument

The first evaluation instrument was administered to academy participants at the end of the academy (Friday afternoon) and consisted of twelve statements to be rated on a Likert scale (1=strongly disagree, 2=disagree, 3=agree, and 4=strongly agree). The statements addressed four major aspects of the academies: materials, instruction, facilitation, and general effectiveness. In addition to completing the Likert scale, participants were also asked to respond to the following open-ended questions:

- 1) What aspects of the academy did you find most useful? Why?
- 2) What part of the academy would you suggest changing to make it better (e.g., structure, presenters)?
- 3) What additional support do you need to implement the MC² CCSSM protocols with others at your school or district? (Please be specific.)
- 4) As a result of my attendance at this academy I plan to take the following action steps back in my district:

The responses to these questions were first examined for each academy, and then for all academies combined. Repetitive perceptions were analyzed and linked thematically to each question. Several themes were common to all the summer academies and will be discussed later in this report.

Pre- Post Survey Instrument

The second evaluation instrument also consisted of a Likert scale and an open-ended question, but was administered twice--Monday morning and Friday morning of the academy. This pre-survey/post-survey format was used to determine if after the week-long training, participants' perceptions of their knowledge of the CCSSM and their self confidence in using and sharing the information provided by MC² had changed. They were asked to use the following Likert scale (0=no basis for an answer, 1=not at all, 2=somewhat, 3=to a great extent, and 4=completely) to respond to eight statements which all began with the words "I am able to..."

The open-ended question in the survey was actually a grade specific mathematics problem selected by each of the MC² grade level teams. The goal of asking the participants to solve a mathematics problem was to discern if their approach to the problem changed and showed the inclusion of strategies and ideas linked to the CCSSM after a week of professional development. The inclusion of a pre- post-mathematics question was piloted for this evaluation, but hopefully will be used in the future when the selection of mathematics problems will undergo a more rigorous screening process and more specific scoring rubrics can be developed.

SUMMARY OF FINDINGS

SUMMATIVE EVALUATION INSTRUMENT

- 628 evaluations were completed by participants from 51 districts throughout New Mexico.
- Educators from all grade levels (K-12) attended the academies. 80% of the attendees were classroom teachers, and 20% were either district/campus administrators or instructional specialists/coaches.
- For all academies combined, the mean ratings for each of the twelve statements was 3.1 or above indicating that the vast majority of the participants felt that the materials, instruction, and facilitation of the academies were effective. (1= strongly disagree , 2= disagree, 3 = agree, and 4 = strongly agree)
- The highest levels of agreement were on the following statements:
 - *The academy materials directly supported the goals of the academy. (3.6)*
 - *I will use the academy materials when I train others in the use of the CCSSM. (3.6)*
 - *The facilitators demonstrated expertise in the CCSSM. (3.6)*
 - *The academy enhanced my knowledge of the CCSSM. (3.6)*
- The lowest level of agreement was on the following statement:
 - *The academy was paced well (neither too fast nor too slow). (3.1)*
- The major themes that emerged from the analysis of the participants' written responses are listed below.

Question 1. What aspects of the academy did you find most useful? Why?

- collaborative work (sharing ideas with each other and learning from each other)
- revisiting the "Envisioning the Standards" protocol
- modeling practices by facilitators throughout the academies

Question 2. What part of the academy would you suggest changing to make it better?

- more focus on demonstrating specific math practices and strategies that can be enacted in the classroom
- extending the time during the academy for planning and applying the CCSSM in the classroom

Question 3. What additional support do you need to implement the MC² CCSSM protocol with others at your school or district?

- personal coaching by MC² facilitators
- on-line support throughout the school year
- more supplementary resources to help teachers incorporate math practices in everyday teaching

Question 4. As a result of my attendance at this academy I plan to take the following action steps back in my district:

- share the information with colleagues in their schools and districts
- enhance student learning through what they learned at the academy
- create (with their colleagues) an implementation plan for the whole academic year

RESULTS FROM EACH ACADEMY SUMMATIVE EVALUATION INSTRUMENT

Below are the results of the summative evaluation instrument shown as an aggregate and also shown by individual academy site. Results for both the quantitative and qualitative portions of the instrument are displayed. This is followed by an individual report for each academy which includes selected comments by the participants.

Number of Summative Evaluations Completed:

Alamogordo	Albuquerque	Artesia	Farmington	Gallup	Las Cruces	Las Vegas	Los Lunas	TOTAL
43	77	115	66	77	59	87	104	628

Number of Districts Represented at Each Summer Academy (Districts may have been represented at more than one academy.)

Alamogordo	Albuquerque	Artesia	Farmington	Gallup	Las Cruces	Las Vegas	Los Lunas	TOTAL
5	1	9	4	2	4	16	10	51

Number of Evaluations Completed at Each Grade Level Session

	K-2	3-5	6-8	High School	2-Day Leadership Only	Various Sessions	No Response
Alamogordo	11	14	12	4	0	1	1
Albuquerque	40	30				4	3
Artesia	34	29	24	21	2	3	2
Farmington	11	19	16	16	0	3	1
Gallup	24	24	6	16	0	0	7
Las Cruces	7	18	18	11	0	2	3
Las Vegas	24	37	7	12	1	4	2
Los Lunas	23	27	17	16	10	4	7
TOTAL	174	198	100	96	13	21	2

Position of Participants: (Note: Some participants indicated that they were teachers, but did not designate what kind of teacher. Other participants indicated that they have more than one position on their campus (e.g., teacher and administrator).)

	Teacher					District Admin.	Campus Admin.	Instructional Coach	Other	No Response
	Regular Education	Special Education	Bilingual/Dual Language	Gifted/Talented	Other					
Alamogordo	30	2	0	0	2	0	0	7	1	1
Albuquerque	36	4	15	0	0	0	1	15	0	3
Artesia	90	2	7	0	0	0	7	2	3	4
Farmington	51	3	1	0	1	0	5	3	0	2
Gallup	45	4	0	0	2	0	9	10	2	6
Las Cruces	26	1	7	4	2	2	4	11	0	2
Las Vegas	60	2	5	0	2	5	3	3	1	4
Los Lunas	60	6	2	0	0	9	3	13	1	9

TOTAL	398	24	37	4	9	16	32	64	8	31
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<p style="text-align: center;">Mean Ratings for the Summer 2012 MC² Academies</p> <p>1= Strongly Disagree 2= Disagree 3= Agree 4=Strongly Agree</p>		Alamogordo (n=43)	Albuquerque (n=77)	Artesia (n=115)	Farmington (n=66)	Gallup (n=77)	Las Cruces (n=59)	Las Vegas (n=87)	Los Lunas (n=104)	All Academies (n=628)
		Materials	1. The academy materials were useful and informative.	3.4	3.6	3.4	3.5	3.5	3.7	3.5
	2. The academy materials directly supported the goals of the academy.	3.6	3.6	3.4	3.5	3.5	3.7	3.5	3.7	3.6
	3. I will use the academy materials when I train others in the use of the CCSS for mathematics.	3.4	3.6	3.5	3.4	3.6	3.8	3.5	3.7	3.6
Instruction	4. The goals and objectives of the academy were clear.	3.6	3.5	3.3	3.3	3.5	3.6	3.4	3.6	3.5
	5. The academy was paced well (was neither too fast nor too slow).	3.0	3.2	2.8	3.0	3.0	3.3	3.1	3.2	3.1
	6. The academy was designed appropriately (instruction segments were not too large and built on one another effectively).	3.5	3.4	3.2	3.2	3.3	3.5	3.3	3.4	3.3
Facilitation	7. The facilitators were organized and well-prepared.	3.4	3.6	3.5	3.2	3.5	3.7	3.4	3.7	3.5
	8. The facilitators modeled concepts in ways that promoted learning and understanding.	3.6	3.6	3.5	3.3	3.6	3.7	3.5	3.7	3.5
	9. The facilitators demonstrated expertise in the CCSS for mathematics.	3.6	3.6	3.5	3.4	3.6	3.7	3.6	3.8	3.6
Effectiveness	10. The academy enhanced my knowledge of the CCSS for mathematics.	3.7	3.6	3.6	3.6	3.6	3.7	3.5	3.7	3.6
	11. I feel more confident in my ability to teach others about the CCSS for mathematics.	3.4	3.5	3.3	3.3	3.3	3.5	3.4	3.4	3.4
	12. The goals and objectives of the academy were met.	3.6	3.6	3.4	3.3	3.4	3.7	3.4	3.6	3.5

Question 1: What aspects of the academy did you find most useful? Why?

COMMON THEMES (marked with an X)	Alamogordo	Albuquerque	Artesia	Farmington	Gallup	Las Cruces	Las Vegas	Los Lunas
The collaborative work (sharing ideas with each other and learning from other colleagues) fostered participants' understanding of CCSSM. Working with grade level teachers was beneficial in understanding the relationship between the grade levels as well as how to build up from previous grade knowledge.	X	X	X	X	X	X	X	X
Revisiting the "Envisioning the Standards" protocol was very useful. Participants liked that it was a step by step process and that it could be used as a resource later.	X	X	X	X	X	X	X	X
Facilitators did a great job of modeling math practices throughout the academies. The modeling and hands-on activities were very beneficial in terms of deepening the understanding of the math standards and their application in the classroom.	X	X	X	X	X	X	X	X

Question 2: What part of the academy would you suggest changing to make it better (e.g. structure, presenters, content)?

COMMON THEMES (marked with an X)	Alamogordo	Albuquerque	Artesia	Farmington	Gallup	Las Cruces	Las Vegas	Los Lunas
Participants suggested that the academy be more focused on demonstrating specific math practices and strategies that can be enacted in the classroom.	X	X	X	X	X	X	X	X

Respondents suggested extending the time during the academy for planning and applying the CCSSM in the classroom.	X		X			X	X	X
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Question 3: What additional support do you need to implement the MC² CCSSM protocols with others at your school or district? Please be specific.

COMMON THEMES (marked with an X)	Alamogordo	Albuquerque	Artesia	Farmington	Gallup	Las Cruces	Las Vegas	Los Lunas
Participants requested personal coaching by MC ² facilitators and online support throughout the school year.	X	X	X	X	X	X	X	X
Respondents requested more supplementary resources to help teachers incorporate math practices in everyday teaching.		X	X	X		X		X

Question 4: As a result of my attendance at this academy I plan to take the following action steps back in my district:

COMMON THEMES (marked with an X)	Alamogordo	Albuquerque	Artesia	Farmington	Gallup	Las Cruces	Las Vegas	Los Lunas
Participants will share the information with colleagues in their schools and districts to support other classroom teachers.	X	X		X		X	X	X
Participants plan to enhance student learning through what they learned at the academy.	X		X	X	X	X	X	X
Academy participants hope to create (with their colleagues) an implementation plan for the whole academic year.	X	X	X		X			X



**MC² CCSSM Academy Participant Evaluations
Alamogordo: June 11-15, 2012**

Number of Evaluations Completed: 43

What grade level sessions did you attend?

K-2 (11) 3-5 (14) 6-8 (12) high school (4) various sessions (1) no response (1)

What is your position?

teacher (34) district administrator (0) campus administrator (0) instructional coach (7)
other (1) no response (1)

If you circled teacher, what kind?

regular education (30) special education (2) bilingual/dual language (0) various classes (2) no response (0)

Alamogordo MC² Academy June 11-15, 2012		No Basis for a Response	Strongly Disagree ①	Disagree ②	Agree ③	Strongly Agree ④	Mean Rating
Percent of Responses							
Materials	1. The academy materials were useful and informative.	0%	0%	5%	51%	44%	3.4
	2. The academy materials directly supported the goals of the academy.	0%	0%	0%	40%	60%	3.6
	3. I will use the academy materials when I train others in the use of the CCSS for mathematics.	12%	7%	0%	35%	47%	3.4
Instruction	4. The goals and objectives of the academy were clear.	2%	0%	2%	37%	58%	3.6
	5. The academy was paced well (was neither too fast nor too slow).	0%	7%	12%	56%	26%	3.0
	6. The academy was designed appropriately (instruction segments were not too large and built on one another effectively).	0%	0%	9%	33%	58%	3.5
Facilitation	7. The facilitators were organized and well-prepared.	0%	0%	7%	44%	49%	3.4
	8. The facilitators modeled concepts in ways that promoted learning and understanding.	0%	0%	2%	40%	58%	3.6
	9. The facilitators demonstrated expertise in the CCSSM.	0%	0%	5%	30%	65%	3.6
Effectiveness	10. The academy enhanced my knowledge of the CCSS for mathematics.	0%	0%	0%	33%	67%	3.7
	11. I feel more confident in my ability to teach others about the CCSSM.	12%	0%	7%	37%	44%	3.4
	12. The goals and objectives of the academy were met.	0%	0%	5%	30%	65%	3.6

In addition to responding to the Likert Scale above, the participants at the Alamogordo Academy were also asked to address four questions. After analyzing their responses, certain major themes emerged. Those themes along with selected comments can be found below.

Question 1: What aspects of the academy did you find most useful? Why?	
<i>Major Themes</i>	<i>Selected Comments</i>
<p>A. The participants found the cooperative learning environment very helpful in sharing ideas with each other and learning from other colleagues especially those who taught the same grade level.</p>	<p>“I most appreciated the opportunity to collaborate with others in the state and the community to share ideas. I enjoyed sharing ideas and doing activities with colleagues. Connections were made with implementing the CCSSM. I loved the cohesiveness of the MC2 team. They supported each other very fluidly. There was lots of <u>paying attention to self</u> and <u>others</u>. I enjoyed this because it takes the adults being able to model cooperative learning in order to recognize and structure the environment (classroom) to work together.”</p> <p>“Studying the standards in grade bands. Because we actually applied what we had been learning (rewrote the standard, thought of examples, looked at practices that were used). It was also helpful to get viewpoints from other people who work at the same grade level.”</p> <p>“Working in grade level groups—K-2, etc. We were able to discuss and work across grade levels in the grade bands. The formative, summative assessment practice was helpful in addition to working out sample problems individually, then discussing the activity with my group (my support group).”</p>
<p>B. Respondents indicated that the “Envisioning the Standards” protocol was very useful. They liked that it was a step by step process and that it could be used as a resource later.</p>	<p>“I loved the ‘Envisioning the Standards’ protocol because it helped me see the standards & break them down into their parts. The math problem that went with the standard helped me understand what it would look like.”</p>
<p>C. Participant responses indicated that modeling the math standards and the hands-on activities were very beneficial in terms of deepening the understanding of the math standards and their application in the classroom.</p>	<p>“Experiencing math to gain understanding of the practices; living the role as facilitator during a math problem; deepening my understanding of CBAM and PowerPoint slides through a questioner’s point of view; anchor posters/charts; perceptions—self, wisdom of others—research, building on C—P—A; understanding personalities through colored roles.”</p> <p>“Introduction of the concept—participant working a problem—“discussion”—participant developing their own belief of the importance of the concept w/out being told. “Ah Ha!” moments.”</p> <p>“The ability to play & practice math games was useful.”</p> <p>“The modeling of good cooperative groups was great to be put in the student position.”</p> <p>“Modeling, protocols, practicing CCSSM standards & practices, switching groups, blending with other districts. Awesome! Awesome! Awesome.”</p>

Question 2: What part of the academy would you suggest changing to make it better (e.g. structure, presenters, content)?	
<i>Major Themes</i>	<i>Selected Comments</i>
A. Participants suggested that the academy be more focused on specific math practices and strategies that can be enacted in the classroom.	<p>“I would have liked more specific info on questioning strategies and building activities/assessments with higher DOK or cognitive demand. I would also like to dig deeper into the math starting at the beginning as I feel like I need refreshers on vocabulary and content to be more effective.”</p> <p>“More focused—suggest well thought-out and suggested lessons—not necessarily demonstrated completely—feedback from standards worksheets. Presenters need to limit conversations about what to do next and who’s going to do it. This should be planned in advance.”</p>
B. Respondents suggested extending the time for practicing the CCSS Mathematical Practices and Standards.	<p>“More time spent on learning/studying about cognitive demand.”</p> <p>“More time (if even possible) on implementation.”</p> <p>“More practice/clarification on cognitive demand.”</p>

Question 3: What additional support do you need to implement the MC2 CCSSM protocols with others at your school or district? Please be specific.	
<i>Major Themes</i>	<i>Selected Comments</i>
A. Participants requested continuing professional development including additional information on instructional strategies and clarification on how to apply the cognitive math standards in the classroom.	<p>“More practice on relating the standards to math practices and what teacher moves will make work in the classroom meaningful.”</p> <p>“More training would be nice, both for myself and district wide. This is a lot to accomplish in one week.”</p> <p>“Honestly I need more training and experience. I feel I have enough information to start implementation for myself but not district wide. I could use the protocols @ my school as laid out.”</p> <p>“More practice with the protocols.”</p>
B. Participants requested personal and online support throughout the school year.	<p>“I am really concerned about the implementation of third grade common core while at the same time, using NM benchmarks and standards with fourth and fifth grade. I would like support in using both and transitioning during the school year.”</p> <p>“Websites of problem examples to use in group work...like ones used in sessions.”</p> <p>“More on-going training. Maybe have a contact person via e-mail to answer questions as they come up during the school year.”</p> <p>“Assistance with planning structure of PLC to get effective collaboration and biggest bang for our bucks.”</p> <p>“Continued support from PALMS during Strategic Planning Days.”</p>

Question 4: As a result of my attendance at this academy I plan to take the following action steps back in my district:

<i>Major Themes</i>	<i>Selected Comments</i>
<p>A. Participants will share the information with colleagues in their schools and districts to support other classroom teachers.</p>	<p>“As a result of this academy, I have a <u>much</u> deeper understanding of the math practices, critical areas, cognitive demands & protocols for facilitation. I plan to continue to deepen my understanding of CCSSM for K-2 as I follow the given protocol & meet with a colleague & we work towards implementation for the 2012-2013 school year. I will also begin working through math lessons & devising purposeful questioning for higher cognitive demand for my students.”</p> <p>“Plan with my PLC partner and teacher leaders to have the best presentations ever. Support teachers in the classrooms helping them reflect on their practices (put my energy into the superstars) hoping others are interested and want ‘some of that.’ Bring clarity into the district with using me as one to research and create.”</p> <p>“I will assist my PALM to present the information learned throughout the week. I will work with the teachers at my school to help make the transitions easier for them and give support when needed.”</p>
<p>B. Participants plan to enhance student learning through what they learned at the academy.</p>	<p>“Look for hands on activities to enhance student learning. Improve my vocabulary to use words that relate directly to core. Discuss with my director about jumping in head first to a program.”</p> <p>“Create units that will help my kids be successful. Think about the practices & critical areas while doing this.”</p> <p>“Realign & explore & use more hands-on to support chapter concepts.”</p>
<p>C. Academy participants hope to create an implementation plan for the whole academic year.</p>	<p>“Develop a plan for implementation.”</p> <p>“Decide what to teach & when.”</p>



MC² CCSSM Academy Participant Evaluations
Albuquerque: July 30-August 3, 2012

Number of Evaluations Completed: 77

What grade level sessions did you attend?

K-2 (40) 3-5 (30) both sessions (4) no response (3)

What is your position?

teacher (58) district administrator (0) campus administrator (1) instructional coach (15)
 no response (3)

If you circled teacher, what kind?

regular education (36) special education (4) bilingual/dual language (15) gifted/talented (0) no response (3)

Albuquerque MC² Academy		No Basis for a Response	Strongly Disagree ①	Disagree ②	Agree ③	Strongly Agree ④	Mean Rating
July 30-August 3, 2012							
Percent of Responses							
Materials	1. The academy materials were useful and informative.	0%	1%	3%	34%	62%	3.6
	2. The academy materials directly supported the goals of the academy.	0%	1%	1%	35%	62%	3.6
	3. I will use the academy materials when I train others in the use of the CCSSM.	0%	1%	1%	30%	68%	3.6
Instruction	4. The goals and objectives of the academy were clear.	0%	1%	4%	38%	57%	3.5
	5. The academy was paced well (was neither too fast nor too slow).	0%	0%	11%	57%	33%	3.2
	6. The academy was designed appropriately (instruction segments were not too large and built on one another effectively).	1%	3%	3%	43%	50%	3.4
Facilitation	7. The facilitators were organized and well-prepared.	0%	1%	1%	38%	59%	3.6
	8. The facilitators modeled concepts in ways that promoted learning and understanding.	0%	1%	1%	36%	62%	3.6
	9. The facilitators demonstrated expertise in the CCSSM.	0%	0%	1%	35%	64%	3.6
Effectiveness	10. The academy enhanced my knowledge of the CCSS for mathematics.	0%	1%	0%	36%	63%	3.6
	11. I feel more confident in my ability to teach others about the CCSSM.	0%	0%	1%	44%	55%	3.5
	12. The goals and objectives of the academy were met.	3%	0%	0%	34%	63%	3.6

In addition to responding to the Likert Scale above, the participants at the Albuquerque Academy were also asked to address four questions. After analyzing their responses, certain major themes emerged. Those themes along with selected comments can be found below.

Question 1: What aspects of the academy did you find most useful? Why?	
<i>Major Themes</i>	<i>Selected Comments</i>
A. Collaborating with colleagues throughout the academy increased participants understanding of the CCSSM and its application.	<p>“I loved being able to talk with other professionals and get their insights and thoughts on CCSSM.”</p> <p>“Being able to collaborate with peers was most useful because I could gather ideas and understand the ideas from another person’s outlook.”</p> <p>“Working with other teachers within my grade. I felt that other teachers could offer ideas and support that is useful.”</p> <p>“I really liked how we broke into grade level groups and looked at our standards in depth.”</p>
B. Connecting math practices to standards increased participants understanding of what the CCSS were really about.	<p>“Applying concepts, practices, and standards to real activities helped me make connections.</p> <p>“I also thought it was really helpful to connect the standards to the math practices.”</p> <p>“Envisioning the standards activity helped me really understand how the practice and standards work together and that I can actually understand them and break them down.”</p> <p>“Being able to understand CC and looking at what it includes. Breaking apart standards and relating them to the math practices.”</p>

Question 2: What part of the academy would you suggest changing to make it better (e.g. structure, presenters, content)?	
<i>Major Theme</i>	<i>Selected Comments</i>
A. Participants suggested some changes in the academy regarding: 1. objectives of the activities 2: “Envisioning the Standards”	<p>1. “Always state activity objectives before beginning! Use examples before allowing us to complete activities. On Day 1 say there are 2 aspects of CCSS: what content and how practice.”</p> <p>“Presenters need to be clearer about objectives.”</p> <p>“Perhaps clearer directions or models of what was expected.”</p> <p>2. “The initial activity Envisioning the Standards activity was a little confusing -- perhaps clearer directions or a model of what was expected.”</p> <p>“For the Envisioning the Standards perhaps you could give each group a different standard to see how they work together.”</p> <p>I think Envisioning the Standards was slow paced. I think we could have changed the dynamic to cover more standards in our group.”</p>

Question 3: What additional support do you need to implement the MC2 CCSSM protocols with others at your school or district? Please be specific.

<i>Major Themes</i>	<i>Selected Comments</i>
A. Participants are looking for continuous support from the MC² facilitators to ensure the implementation of standards in the classrooms.	<p>"I think the follow up support will be essential for my school to move forward with the CCSSM."</p> <p>"A midyear refresher from the MC2 to our school."</p> <p>"Updated emails, suggestions, and resources."</p> <p>"Communicate regularly to provide feedback. Have follow up meetings."</p> <p>"Contact with the Mc2 facilitators for any questions or clarification."</p> <p>"A good website to refer to so I can review and clarify my thoughts."</p>
B. Participants suggested spending more time discussing the CCSSM.	<p>"More work time in groups and on computer in going over the common core standards."</p> <p>"Time to talk at grade level and as a whole school."</p> <p>"Need time for planning, so I can implement the program."</p>

Question 4: As a result of my attendance at this academy I plan to take the following action steps back in my district:

<i>Major Themes</i>	<i>Selected Comments</i>
A. Academy participants plan to collaborate with their colleagues to ensure the enactment of the CCSSM in an efficient and supportive manner.	<p>"I will be using several protocols during the first week of school (focus, critical areas, posters, and Math practices), we will use envisioning the standards activities during weekly grade level collaboration meetings."</p> <p>"Actions steps I plan to take back to my school are creating an understanding of the work that has gone into CCSSM in our district and how much teacher voices were involved. I also want to make teachers understand content standards and mathematical practices so they are not as stressed about common core standards."</p> <p>"Share and teach the following: Build community, the norms for collaborative work, cognitive demand, show what the practices can look like in action, critical areas protocol."</p> <p>"Share CCSSM as exciting, show examples of how we already meet some of the math practice, reform PLC to create a supportive environment to implement the CCSSM."</p>



MC² CCSSM Academy Participant Evaluations
Artesia: June 18-22, 2012

Number of Evaluations Completed: 115

What grade level sessions did you attend?

K-2 (34) 3-5 (29) 6-8 (24) high school (21) leadership only (2) various sessions (3) no response (2)

What is your position?

teacher (99) district administrator (0) campus administrator (7) instructional coach (2)
 teacher/campus administrator or teacher/instructional coach (3) no response (4)

If you circled teacher, what kind?

regular education (91) special education (2) bilingual/dual language (7) gifted/talented (0) no response (2)

Artesia MC² Academy		No Basis for a Response	Strongly Disagree ①	Disagree ②	Agree ③	Strongly Agree ④	Mean Rating
June 18-22, 2012							
Percent of Responses							
Materials	1. The academy materials were useful and informative.	0%	0%	0%	59%	41%	3.4
	2. The academy materials directly supported the goals of the academy.	1%	0%	2%	51%	46%	3.4
	3. I will use the academy materials when I train others in the use of the CCSSM.	3%	0%	1%	45%	50%	3.5
Instruction	4. The goals and objectives of the academy were clear.	0%	2%	4%	54%	40%	3.3
	5. The academy was paced well (was neither too fast nor too slow).	0%	5%	25%	51%	18%	2.8
	6. The academy was designed appropriately (instruction segments were not too large and built on one another effectively).	1%	1%	14%	53%	31%	3.2
Facilitation	7. The facilitators were organized and well-prepared.	1%	0%	1%	45%	53%	3.5
	8. The facilitators modeled concepts in ways that promoted learning and understanding.	1%	0%	3%	41%	56%	3.5
	9. The facilitators demonstrated expertise in the CCSSM.	3%	0%	2%	41%	55%	3.5
Effectiveness	10. The academy enhanced my knowledge of the CCSS for mathematics.	1%	1%	3%	35%	61%	3.6
	11. I feel more confident in my ability to teach others about the CCSSM.	2%	1%	7%	53%	37%	3.3
	12. The goals and objectives of the academy were met.	4%	0%	2%	52%	42%	3.4

In addition to responding to the Likert Scale above, the participants at the Artesia Academy were also asked to address four questions. After analyzing their responses, certain major themes emerged. Those themes along with selected comments can be found below.

Question 1: What aspects of the academy did you find most useful? Why?	
<i>Major Themes</i>	<i>Selected Comments</i>
<p>A. Collaborating with other teachers and administrators helped participants better understand the CCSSM.</p>	<p>“I found that we were sharing and discussing together the deconstruction of a standard to be the most helpful. We as groups were able to bounce ideas off each other and that made the process easier.”</p> <p>“Small group discussions were the most useful. It was much more personal & interactive than whole class discussion or presenting to the whole class.”</p> <p>“Work in cooperative groups with the 7 Norms. Because we learn to discuss with people of different places.”</p> <p>“I liked the cooperative learning. I learned a lot of great things from the presenters as well as the teachers attending the academy.”</p>
<p>B. Explaining and modeling mathematical practices provided participants with a clear understanding of how they can be used in actual teaching.</p>	<p>“The math problems were grade appropriate and let us understand how to use the common core standards.”</p> <p>“The time spent on the Math Practices & the continued emphasis w/ each protocol</p> <ul style="list-style-type: none"> • Clarity on Mathematical Practices • Examples on how cognitive demand can help incorporate more practices the higher the demand is • Visuals on how the critical areas bridge from grade to grade.” <p>“I thought the Envisioning Standards was very beneficial because it allowed us to gain a deeper understanding of the standards and showed us what we would be teaching.”</p> <p>“Working with just my grade level. Breaking the math practices down & really concentrating on them, I feel more confident working with the CCSS because we concentrated on one each day and really learned it and applied the Math Practices to the Standards.”</p>
<p>C. Working with grade level teachers was beneficial in understanding the relationship between the grade levels as well how to build up from previous grade knowledge.</p>	<p>“Build on the standards—i.e., we looked at each grade level (3-5) and therefore understood the relationship and how it built up from 3-5th. I realized the importance of the math practices and the critical areas. I did not really focus on that in my other trainings.”</p> <p>“Looking at the critical areas by grade level but coming back and looking at them across the grade levels.</p> <p>--Ideas for teaching the standards in grade level groups.</p> <p>--Time to map out standards w/curriculum as grade levels.”</p> <p>“Working in grade levels and neighboring grade levels to see scaffolding. The activities made you feel like you were taking ownership. Facilitators enthusiasm.”</p>

Question 2: What part of the academy would you suggest changing to make it better (e.g. structure, presenters, content)?	
<i>Major Theme</i>	<i>Selected Comments</i>
<p>A. Participants suggested more time for planning and applying the CCSSM to curriculum in the classroom.</p>	<p>“Giving teams more time together to start planning on how they will be implementing. Maybe take away one morning of the envisioning standards because that did get a little repetitive.”</p> <p>“More time to correlate standards to curriculum or where standards lie within the curriculum.”</p> <p>“Less time on presentations & posters; more time planning & actually applying the CCSS-M to our curriculum.”</p> <p>“Less days, more time for implementing your curriculum to the standards.”</p> <p>“More time for planning implementation of CCSS.”</p> <p>“I felt like we needed more time (days) to go over curriculum.”</p> <p>“I would have benefited from more time engaged.”</p>
<p>B. Respondents recommended more activities and demonstration of actual classroom implementation of the math standards.</p>	<p>“More activities to use in class. Demonstrate these rich problems using ideas so we could see how it really is supposed to look.”</p> <p>“More examples and resources for common core implementation.”</p> <p>“More activities to use in the classroom to support CCSS.”</p> <p>“More curriculum map—day & day classroom practice—make <u>A UNIT</u> not 1 standard.”</p> <p>“Although some actual examples and demonstrations of lessons were presented, I would like to have seen more lesson demonstrations. Seeing the lesson actually taught was more helpful than simply listening to a description of the teaching methods.”</p>
<p>C. Participants suggested that K-2 presenters have more experience in early childhood.</p>	<p>“If you have K-2 teachers attending your academy, <u>please, please, please</u> have leaders/presenters that have early childhood experience!!! It is not helpful when the presenter has no experience in early childhood!”</p> <p>“Some of the presenters did not really match the areas or levels that they were working with. (Ex Early Years/K-2; presenters not very suitable.)”</p> <p>“Some of the presenters were very knowledgeable of the Math Standards but lacked a bit in best practices.”</p> <p>“Presenters <u>must have</u> that early childhood background in order to be effective. I think we have a good start.”</p>

Question 3: What additional support do you need to implement the MC2 CCSSM protocols with others at your school or district? Please be specific.

<i>Major Themes</i>	<i>Selected Comments</i>
<p>A. Participants indicated that providing on-going coaching and communication throughout the school year would enrich their CCSS knowledge and understanding.</p>	<p>“More websites that can be used as resources and refreshers. Grade level inservices. Time to meet with grade level teachers to go over info and brainstorm ideas/strategies and resources to use.”</p> <p>“Additional resources—How are we going to supplement our material to assure that all standards are really focused on?”</p> <p>“Possibly setting up a directory to allow teachers to communicate with others from other districts and MC2 staff when assistance is needed.”</p> <p>“Maybe a review—midway into the first semester to answer some questions that might have during the school year.”</p>

Question 4: As a result of my attendance at this academy I plan to take the following action steps back in my district:

<i>Major Themes</i>	<i>Selected Comments</i>
<p>A. Participants plan to enact the Mathematical Practices in the classroom to enhance student learning.</p>	<p>“Using the norms and practices in my classroom (not math) as much as possible. Also to help the gen ed teacher implement these when in the gen classroom.”</p> <p>“Jump in and teach the students using the CCSS with a positive attitude.”</p> <p>“Work on implementing CCSS in my teaching and use some of the techniques explained in the classroom.”</p> <p>“Translate & rewrite the standards in student-friendly manner. Integrate the norms & teaching practices and be mindful of this all the time.”</p> <p>“Now that I am more familiar with the mathematics practices that students need to develop, I will use them to evaluate my effectiveness of my teaching. I plan to use additional techniques to improve my teaching.”</p> <p>“I plan to share my knowledge of how to deconstruct these standards to help others get a better understanding of how to implement these in the classroom.”</p>
<p>B. Academy participants hope to create an implementation plan for the whole academic year with their colleagues.</p>	<p>“I plan on introducing the 8 math practices. I will break down each standard with staff. We will look at how each standard can be met through the lens of each math practice. Thank you! I feel that this was very productive.”</p> <p>“Collaborate w/ grade level peers and not just looking at standards but perhaps facilitate in the discovery; delving into the mathematical practices/critical areas.”</p> <p>“Work collaboratively with other staff about CCSS (primarily in my department). Continue making unit plans and assessments ready to be used.”</p> <p>“Make sure people understand that this is the curriculum & not a supplemental tool.”</p>



MC² CCSSM Academy Participant Evaluations
Farmington: June 4-8, 2012

Number of Evaluations Completed: 66

What grade level sessions did you attend?

K-2 (11) 3-5 (19) 6-8 (16) high school (16) various sessions (3) no response (1)

What is your position?

teacher (56) district administrator (0) campus administrator (5) instructional coach (3)
 other (0) no response (2)

If you circled teacher, what kind?

regular education (51) special education (3) bilingual/dual language (1) gifted/talented (0) other (1)

Farmington MC² Academy		No Basis for a Response	Strongly Disagree ①	Disagree ②	Agree ③	Strongly Agree ④	Mean Rating
June 4-8, 2012							
Percent of Responses							
Materials	13. The academy materials were useful and informative.	0%	0%	6%	36%	58%	3.5
	14. The academy materials directly supported the goals of the academy.	3%	0%	2%	35%	61%	3.5
	1. I will use the academy materials when I train others in the use of the CCSSM.	2%	3%	5%	36%	55%	3.4
Instruction	2. The goals and objectives of the academy were clear.	0%	2%	12%	42%	44%	3.3
	3. The academy was paced well (was neither too fast nor too slow).	0%	2%	18%	55%	26%	3.0
	4. The academy was designed appropriately (instruction segments were not too large and built on one another effectively).	2%	2%	6%	56%	35%	3.2
Facilitation	5. The facilitators were organized and well-prepared.	0%	3%	12%	45%	39%	3.2
	6. The facilitators modeled concepts in ways that promoted learning and understanding.	2%	3%	8%	36%	52%	3.3
	7. The facilitators demonstrated expertise in the CCSSM.	0%	5%	6%	33%	56%	3.4
Effectiveness	8. The academy enhanced my knowledge of the CCSS for mathematics.	0%	0%	2%	35%	64%	3.6
	9. I feel more confident in my ability to teach others about the CCSSM.	0%	0%	5%	59%	36%	3.3
	10. The goals and objectives of the academy were met.	3%	0%	5%	50%	42%	3.3

In addition to responding to the Likert Scale above, the participants at the Farmington Academy were also asked to address four questions. After analyzing their responses, certain major themes emerged. Those themes along with selected comments can be found below.

Question 1: What aspects of the academy did you find most useful? Why?	
<i>Major Themes</i>	<i>Selected Comments</i>
<p>A. Practicing the mathematical practices solidified participants understanding of CCSSM.</p>	<p>“Time to work, time to discuss. This helped to solidify my understanding and clear up misconception. The modeling of lessons/questions. This helped me see how the common core is going to have to be taught. Envisioning process helped me to understand standards.”</p> <p>“Doing the envisioning page because I had to truly understand the standard so that I could write the standard in my own words. Then what I really liked was tying in the math practice. By doing all of the math practices at different times I feel I truly know math practices 1, 2, 3, and 6 really well. I couldn't come up with an example on my own, but after looking at the example given, I could make up a similar example. Then I was forced (myself) to write the standard in kid friendly language.”</p> <p>“I like the mathematical practices and it's the integration of solving problems aligned with the common core standards because of this the students will be able to make an analysis and share it with the group and collaboration is the main source of learning.”</p>
<p>B. The cooperative learning environment with grade level teachers and different districts fostered participants' understanding of the CCSSM standards.</p>	<p>“Discussions were extremely helpful and insightful. The ability to work in grade levels while working with multiple districts. Forms and activities to take back with us was helpful. The organization of our binders was great.”</p> <p>“Meeting with other districts and learning about their progress and strategies. Some presenters were excellent--especially like Mindy.”</p> <p>“Working with my grade level as well as with grades in my small group was helpful and playing math games and team building was refreshing. Mindset was very helpful too.”</p>

Question 2: What part of the academy would you suggest changing to make it better (e.g. structure, presenters, content)?

<i>Major Themes</i>	<i>Selected Comments</i>
<p>A. Participants suggested providing more direction and specific examples.</p>	<p>“More specifics on assessment using high cog. demand. There were excellent examples of CCSS resealed and demonstrated however there wasn't any discussion of the fact that the one example used covered one part of the standard that was addressed. [The] Specifically there was a session on a 4th grade standard on pattern using shapes and numbers sequences. It wasn't clarified that the example demonstrated shape patterns and not patterns in number sequences.”</p> <p>“Sometimes directions were unclear. Sharing objectives for each activity is important for all activities. Wait time was not great. You talk while you asked us to read or write and you give directions while we're still working. You expect immediate response with a large group! We need consistency, even if you can't get everything in that felt forced. We had to do the pool problem on Tues and Wed.”</p> <p>“Present specific example for each protocol so that teachers will have an idea on what to do in implementing the CCS successfully in their field of work such as in a classroom, PLC's, and administration of schools.”</p> <p>“Just a thought: Show the entire staff what PLC norms look like. Then using critical area--have the staff circle verbs. Then unpack just one standard at a time using the envisioning template.”</p>
<p>B. Respondents recommended facilitators be more flexible and more audience-appropriate in their presentation.</p>	<p>“Some facilitators were too rigid with the ‘structure’ of the academy and didn't allow any flexibility based on group needs or worthwhile discussions.”</p> <p>“Some of the facilitators were not able to deviate from the ‘protocol’ to meet our needs. We were not able to use the materials to fit our needs. This was in the elementary 3-5 class.”</p> <p>“Not all, but some presenters tended to talk down to us. We are professionals and adults and should be treated as such.”</p> <p>“I appreciate the facilitators sharing all of this knowledge with us while we were ‘students.’ Sometimes, however, I felt like one facilitator forgot that we were actually professional adults--and that resulted in a negative feeling.”</p> <p>“Some of the K-2 presenters seemed to talk to us like we were students not as professionals.”</p>

Question 3: What additional support do you need to implement the MC2 CCSSM protocols with others at your school or district? Please be specific.

<i>Major Theme</i>	<i>Selected Comments</i>
A. Participants recommended providing resources and support throughout the school year.	<p>“Checking in throughout the year and being able to have them help with a guided area.”</p> <p>“Possibly an opportunity to email questions during times between training academies.”</p> <p>“Back-up. We are definitely comfortable on the material and having back-up would be wonderful to discuss the material to staff.”</p> <p>“Keep us informed of materials (assessment, problems, etc.) that are already being developed so we don't have to reinvent the wheel.”</p> <p>“I need so much one-on-one assistance to help me to use technology and what web-sites to use to help me with my implementation of protocols.”</p>

Question 4: As a result of my attendance at this academy I plan to take the following action steps back in my district:

<i>Major Themes</i>	<i>Selected Comments</i>
A. Participants look forward to enacting the learned skills and knowledge in the classroom.	<p>“Implement effective PLC's through use of norms, useful protocols, etc. Create lessons that have more open-ended pieces that allow for stronger implementation of math practices.”</p> <p>“Continue working on pacing guide. Make posters as reminders of math practices and norms for my classroom. Be more thoughtful in lesson planning.”</p> <p>“Create a year-long set of CC lesson order and pacing guide. Buy, download, or create ACC assessment.”</p>
B. Academy participants hope to share the structure of the CCSSM with teachers in their schools and districts.	<p>“I will be training others in my building. You have broadened my understanding of the new CCSS exponentially. You are a great organization and resource. Thank you.”</p> <p>“Sharing info with district and building administrators to begin developing a district plan. Building level--intro norms of collaboration--begin work of envisioning the standards.”</p> <p>“I will share the structure and importance of the CC and demonstrate to my team how to begin aligning our curriculum through the math proactive lens.”</p>



MC² CCSSM Academy Participant Evaluations
Gallup: June 4-8, 2012

Number of Evaluations Completed: 65

What grade level sessions did you attend?

K-2 (12) 3-5 (24) 6-8 (6) high school (16) 2-day leadership only (0) no response (7)

What is your position?

teacher (44) district administrator (0) campus administrator (7) instructional coach (8)
 other (2) no response (4)

If you circled teacher, what kind?

regular education (40) special education (3) bilingual/dual language (0) gifted/talented (0) other (3)

Gallup MC² Academy June 4-8, 2012		No Basis for a Response	Strongly Disagree ①	Disagree ②	Agree ③	Strongly Agree ④	Mean Rating
Percent of Responses							
Materials	1. The academy materials were useful and informative.	0%	0%	0%	46%	54%	3.5
	2. The academy materials directly supported the goals of the academy.	0%	0%	3%	38%	58%	3.6
	3. I will use the academy materials when I train others in the use of the CCSSM.	0%	2%	2%	34%	63%	3.6
Instruction	4. The goals and objectives of the academy were clear.	0%	0%	5%	48%	48%	3.4
	5. The academy was paced well (was neither too fast nor too slow).	2%	6%	18%	37%	37%	3.0
	6. The academy was designed appropriately (instruction segments were not too large and built on one another effectively).	2%	2%	5%	45%	48%	3.4
Facilitation	7. The facilitators were organized and well-prepared.	0%	0%	5%	35%	60%	3.6
	8. The facilitators modeled concepts in ways that promoted learning and understanding.	0%	0%	2%	37%	62%	3.6
	9. The facilitators demonstrated expertise in the CCSSM.	0%	0%	2%	32%	66%	3.6
Effectiveness	10. The academy enhanced my knowledge of the CCSS for mathematics.	0%	0%	2%	38%	60%	3.6
	11. I feel more confident in my ability to teach others about the CCSSM.	0%	0%	8%	57%	35%	3.3
	12. The goals and objectives of the academy were met.	2%	2%	6%	43%	48%	3.3

In addition to responding to the Likert Scale above, the participants at the Gallup Academy were also asked to address four questions. After analyzing their responses, certain major themes emerged. Those themes along with selected comments can be found below.

Question 1: What aspects of the academy did you find most useful? Why?	
<i>Major Themes</i>	<i>Selected Comments</i>
A. The demonstration of the math tasks enhanced participant’s knowledge of the CCSS for mathematics and how to enact them in the classroom.	<p>“The actual math tasks that we participated in because they gave me ideas I could actually use and because they helped me see different ways to solve the same problem.”</p> <p>“The math experience because it gives me ideas on how to implement rigorous lessons that align with the standards, practices and protocols.”</p> <p>“I found the mathematical experiences the most helpful. I was able to experience what my students experience in the classroom, but I could also envision myself teaching the CCS as well.”</p> <p>“What I found most useful was decontextualizing the standards, performing a math task and seeing how the lesson fits the standard and the math practices.”</p>
B. Participants found the group discussion throughout the academy very beneficial.	<p>“Discussion/sharing of expertise with people from other schools; we are a large district and rarely have an opportunity to get together.”</p> <p>“Working in groups on some of the common core standards as math practices were most beneficial to me because it showed me, as a teacher, what common core looks like in my classroom.”</p> <p>“Group discussions were beneficial, collaboration with fellow math teachers is helpful. They have some questions/issues with CCMS that I have. Formative assessment was addressed.”</p>

Question 2: What part of the academy would you suggest changing to make it better (e.g. structure, presenters, content)?	
<i>Major Theme</i>	<i>Selected Comments</i>
A. Respondents recommended more explanation and demonstration of math standards and practices.	<p>“Showing movies to give demonstrations into actions to help understand the mathematical practice.”</p> <p>“More practice on how to change low cognitive demands problem to high cognitive demand problem. See more examples of ‘performance tasks.’”</p> <p>“More in-depth discussion and samples in paraphrasing standards in student-friendly language.”</p>

Question 3: What additional support do you need to implement the MC2 CCSSM protocols with others at your school or district? Please be specific.

<i>Major Themes</i>	<i>Selected Comments</i>
A. Participants indicated that providing ongoing coaching throughout the school year will enrich their CCSS knowledge and understanding.	<p>“Ongoing coaching. This was a lot to digest and I fear that I will walk away and forget parts. Having someone there to check our progress and give helpful feedback would be invaluable.”</p> <p>“Constant communication with MCC staff and additional trainings throughout the school year.”</p> <p>“Have MCC staff come to our classrooms, observe us, and check in with us.”</p> <p>“Staff development for all teaching staff not only for a few. Follow up professional development.”</p> <p>“Resources and more specific examples, progress PDs to enrich CCSS knowledge and understanding.”</p> <p>“The academy needs to be ongoing so that revisions can be effectively made yearly.”</p>
B. Respondents expressed the need for more time to increase their understanding of the CCSSM.	<p>“Honestly, another week of training that might include what the beginning of a lesson may look like, what the student tasks may look like, and what the initial lesson may look like (assessment, yes, but what does it look like)?”</p> <p>“Time to implement CCSSM (MC2 protocols. Collaborative time with other teachers. Realistic expectations for implementation--need quality vs. quantity--time to increase our understanding of CCSSM.”</p>

Question 4: As a result of my attendance at this academy I plan to take the following action steps back in my district:

<i>Major Themes</i>	<i>Selected Comments</i>
A. Participants plan to enact the Mathematical Practices in the classroom to enhance student learning.	<p>“Use more of student-driven learning instead of teacher-driven. Use more of discovery tasks through which students could learn math concepts.”</p> <p>“Plan instruction, develop curriculum, deconstruct standards, making standards in kid-friendly language, practice essential instructional (shift) moves that mcc staff used in the classroom, work as a committee with schools to implement common core.”</p>
B. Academy participants hope to create an implementation plan for the whole academic year with their colleagues.	<p>“I plan to present CCSSM with mathematical practice cognitive demand and rigor rate at the beginning of the school year then every month have the staff do an activity to understand a mathematical practice. Finally ask questions and give feedback to help the staff understand and see if they're implementing in their lesson plans.”</p>



**MC² CCSSM Academy Participant Evaluations
Las Cruces: June 11-15, 2012**

Number of Evaluations Completed: 59

What grade level sessions did you attend?

K-2 (7) 3-5 (18) 6-8 (18) high school (11) various sessions (2) no response (3)

What is your position?

teacher (40) district administrator (2) campus administrator (4) instructional coach (11)
other (0) no response (2)

If you circled teacher, what kind?

regular education (26) special education (1) bilingual/dual language (7) regular & gifted (4) no response (2)

Las Cruces MC² Academy June 11-15, 2012		No Basis for a Response	Strongly Disagree ①	Disagree ②	Agree ③	Strongly Agree ④	Mean Rating
Percent of Responses							
Materials	1. The academy materials were useful and informative.	0%	0%	0%	34%	66%	3.7
	2. The academy materials directly supported the goals of the academy.	0%	0%	0%	29%	71%	3.7
	3. I will use the academy materials when I train others in the use of the CCSSM.	0%	0%	0%	22%	78%	3.8
Instruction	4. The goals and objectives of the academy were clear.	0%	0%	3%	36%	61%	3.6
	5. The academy was paced well (was neither too fast nor too slow).	2%	0%	12%	47%	39%	3.3
	6. The academy was designed appropriately (instruction segments were not too large and built on one another effectively).	0%	0%	2%	47%	51%	3.5
Facilitation	7. The facilitators were organized and well-prepared.	0%	0%	0%	32%	68%	3.7
	8. The facilitators modeled concepts in ways that promoted learning and understanding.	0%	0%	0%	31%	69%	3.7
	9. The facilitators demonstrated expertise in the CCSSM.	0%	0%	0%	31%	69%	3.7
Effectiveness	10. The academy enhanced my knowledge of the CCSS for mathematics.	0%	0%	0%	34%	66%	3.7
	11. I feel more confident in my ability to teach others about the CCSSM.	2%	0%	2%	46%	51%	3.5
	12. The goals and objectives of the academy were met.	0%	0%	0%	31%	69%	3.7

In addition to responding to the Likert Scale above, the participants at the Las Cruces Academy were also asked to address four questions. After analyzing their responses, certain major themes emerged. Those themes along with selected comments can be found below.

Question 1: What aspects of the academy did you find most useful? Why?	
<i>Major Themes</i>	<i>Selected Comments</i>
<p>A. Participants appreciated the cooperative learning environment created by the dialogue and discussion with other teachers throughout the academy.</p>	<p>“The aspects I found most useful were the discussion you let us have at every session. The learning was going on from the minute you started explaining to the rich conclusion of discussion.”</p> <p>“Being able to talk and work with other teachers was one of the best aspects because I was able to learn a lot.”</p>
<p>B. Participants found the deconstructing and modeling of the math standards very useful.</p>	<p>“Working through the math problems and incorporating the protocol along with the mathematical practices. GREAT PEOPLE & FOOD!”</p> <p>“Going through specific standards and doing specific activities with them. This helped me gain clear understanding of the standard and how I should go about looking at them in the future.”</p> <p>“Deconstructing the standards; planning for next year; learning about the 8 mathematical practices. It is not that I wasn’t familiar with such concepts but they were helpful because they served as a guide for me as an educator. Having the 8 practices organized and available helps not only me but also helps my colleagues back at my campus have a focus for teaching math & other subjects.”</p> <p>“Breaking down the standards and practices, as well as establishing the collaborative norms. Good examples of how to teach this information to others through experiencing the process myself.”</p> <p>“The opportunity to work through, think about the mathematical practices first as just what does it mean (look like); then the math and working the problems facilitated my understanding of how to think about the mathematical practice in the math itself. My strong suit, experience and expertise is literacy, not math, so it’s hard for me to work through the math. However, the opportunity to learn, talk, “struggle” with other colleagues through the math & mathematical practices gave me more confidence that I can help my teachers w/ CCSSM.”</p> <p>“Grade level break-out sessions (6-8); why: very clear now how 6-7-8 grades are interrelated.”</p>
<p>C. Respondents indicated that revisiting “Envisioning the Standards” throughout the week was useful to them.</p>	<p>“I found the repetition of the protocol ‘The Envisioning the Standards’ very helpful. Personally I need to see it (engage with it) several times before I can feel confident before I try it w/ staff.”</p> <p>“The envisioning protocol was very useful. Being able to practice several times really helped learn the process.”</p>

Question 2: What part of the academy would you suggest changing to make it better (e.g. structure, presenters, content)?	
<i>Major Themes</i>	<i>Selected Comments</i>
A. Participants suggested that the presenters go into more detail about the application of the CCSS Math Practices.	“Dive into the common core standards a little more—to better prepare teachers what is expected of teachers as well of students.”
B. Respondents proposed expanding the duration of the academy to ensure mastering the presented materials.	<p>“The math activities were useful but the flow of those activities & their relevance sometimes got partially lost due to time constraints.”</p> <p>“I would like to have in depth of one section and then continued until all parts of the academy were completed. In other words, too much information for a short time. One week does not guarantee that I have mastered what I was supposed to take back to my school.”</p> <p>“I would make it longer because it is a lot of information to process. Longer as in two weeks instead of one.”</p>
C. Respondents suggested inviting more than one teacher from each school.	<p>“I do believe that it would have been better for at least 2 or 3 teachers to attend so that they could work together as a team when going back to their campus to train the other teachers. The 1 teacher felt overwhelmed to think that she had to go back and train the 40 teachers at her campus.”</p> <p>“It was a great academy & I learned a lot. The only thing I think would have been better was to allow us to bring more than 1 classroom teacher. The 1 teacher that we did bring expressed how overwhelmed they felt.”</p>

Question 3: What additional support do you need to implement the MC2 CCSSM protocols with others at your school or district? Please be specific.	
<i>Major Themes</i>	<i>Selected Comments</i>
A. Respondents requested more supplementary resources to help teachers incorporate math practices in everyday teaching.	<p>“Right now I think that I would need the material that has been presented here to be available, but also future development that has come from new research. Maybe on-site support to talk, educate other teachers at campuses during staff development days.”</p> <p>“Resources that I can use that align to CCSSM. Developing my ability to incorporate math practices everyday consciously.”</p>
B. Participants want to receive support from the academy facilitators throughout the year.	<p>“Touch base with us periodically to support us in implementing the protocols and in our work on teaching and learning. Allow us to give you feedback on how the protocols may be effective or not.”</p> <p>“To be able to email facilitators with questions or concerns.”</p> <p>“Contact with the MC2 staff and the support from faculty and principals.”</p> <p>“Your availability for contact; contact information.”</p>

Question 4: As a result of my attendance at this academy I plan to take the following action steps back in my district:	
Major Themes	Selected Comments
<p>A. Participants are looking forward to enacting the CCSS Math Practices in classrooms.</p>	<p>“Support and collaborate with everyone in CCSSM implementation. Take the practice to my classroom right away; Like, --The CCSSM document & its protocols --Relevant math activities used Will take these back to justify to Dept Chair/Administrators how this CCSSM Plan will be successfully implemented with expected results.”</p> <p>“1st & foremost, we are going to focus on the Math Practices & look at current lessons, one practice every two weeks, will evaluate if the lesson addressed & hit the practice, where there’s evidence, & what we could change to make sure the practice is being addressed.”</p> <p>“I will start implementing the mathematical practices and will envision my grade level standards during my PLC’s.”</p>
<p>B. Participants plan to share the CCSS Math Practices and Standards in their schools and districts.</p>	<p>“As the District Specialist I will:</p> <ul style="list-style-type: none"> • Follow up with the Instructional Coaches & the Implementation Teams to make sure that they “share” the learning with the teachers and administrators. • Follow up with administrators to offer my support and to see that they in turn are giving the proper support to the Implementation Team. • Keep open communication with MC2 personnel.” <p>“Introducing the following practices and concepts: 1. Breaking down the standards 2. 7 Norms of Collaborative Work 3. Mathematical Practices 4. Relating Math Content to Critical Areas 5. Cognitive Demand.”</p> <p>“Work with District Math Leadership Team to support schools as they move forward with CCSSM. Work with my school to increase awareness of CCSSM and to begin incorporating them into instruction.”</p>



MC² CCSSM Academy Participant Evaluations
Las Vegas: June 18-22, 2012

Number of Evaluations Completed: 87

What grade level sessions did you attend?

K-2 (24) 3-5 (37) 6-8 (7) high school (12) leadership only (1) various sessions (4) no response (2)

What is your position?

teacher (71) district administrator (5) campus administrator (3) instructional coach (3)
 teacher/campus administrator (1) no response (4)

If you circled teacher, what kind?

regular education (60) special education (2) bilingual/dual language (5) various classes (2) no response (3)

Las Vegas MC² Academy		No Basis for a Response	Strongly Disagree ①	Disagree ②	Agree ③	Strongly Agree ④	Mean Rating
June 18-22, 2012							
Percent of Responses							
Materials	1. The academy materials were useful and informative.	0%	0%	2%	50%	48%	3.5
	2. The academy materials directly supported the goals of the academy.	0%	0%	3%	48%	49%	3.5
	3. I will use the academy materials when I train others in the use of the CCSSM.	6%	0%	0%	48%	47%	3.5
Instruction	4. The goals and objectives of the academy were clear.	1%	0%	9%	47%	43%	3.4
	5. The academy was paced well (was neither too fast nor too slow).	0%	3%	14%	51%	31%	3.1
	6. The academy was designed appropriately (instruction segments were not too large and built on one another effectively).	0%	2%	6%	53%	38%	3.3
Facilitation	7. The facilitators were organized and well-prepared.	0%	2%	2%	47%	49%	3.4
	8. The facilitators modeled concepts in ways that promoted learning and understanding.	0%	0%	1%	48%	51%	3.5
	9. The facilitators demonstrated expertise in the CCSSM.	3%	0%	1%	41%	55%	3.6
Effectiveness	10. The academy enhanced my knowledge of the CCSS for mathematics.	0%	0%	1%	43%	56%	3.5
	11. I feel more confident in my ability to teach others about the CCSSM.	1%	0%	3%	53%	42%	3.4
	12. The goals and objectives of the academy were met.	3%	0%	3%	49%	44%	3.4

In addition to responding to the Likert Scale above, the participants at the Las Vegas Academy were also asked to address four questions. After analyzing their responses, certain major themes emerged. Those themes along with selected comments can be found below.

Question 1: What aspects of the academy did you find most useful? Why?	
<i>Major Themes</i>	<i>Selected Comments</i>
<p>A. Participants learned how the knowledge of CCSSM can improve student success when enacted in the classroom.</p>	<p>“Learning about the math practices opened my eyes to the CCSS and seeing how to implement the math practices into my daily routine was critical to student success.”</p> <p>“In this part of the academy I understood how to identify what students needed to know and what to demonstrate within the context of a standard.”</p> <p>“The sessions for my grade level were the most useful. I got many ideas that will help me using methods that will teach to the common core.”</p> <p>“Some of the handouts—like relating math Content Standards to Critical Areas really helped me see how they tie together. Going over some of the questioning for deeper thinking was helpful to see what I need to do all the time in my classroom.”</p>
<p>B. The collaborative work between participants allowed for better understanding of CCSSM.</p>	<p>“Allowing us to work in collaborative groups. This allowed us to gain a better understanding of the skills and ideas of other group members. In addition, we were better able to solve or analyze the tasks assigned to the group.”</p> <p>“The discussions with the teachers from both my team & other school districts; were ideas provoking & helpful in organizing my thoughts & gaining better understanding in organizing CC which was VERY confusing to me initially.”</p>
<p>C. Facilitators did a great job of modeling math practices throughout the academy.</p>	<p>“I really enjoyed the teaching (modeling of what it should look like). Being able to participate and look for those instructional elements helped me see the bigger picture (in the classroom).”</p> <p>“The lesson modeling while looking for ‘learning environment indicators’ was also useful.”</p> <p>“Many of the staff were very knowledgeable and modeled excellent practices.”</p>

Question 2: What part of the academy would you suggest changing to make it better (e.g. structure, presenters, content)?

<i>Major Theme</i>	<i>Selected Comments</i>
<p>A. Participants suggested spending more time in aligning curriculum with the CCSSM.</p>	<p>“DO NOT WASTE MY time by spending hours playing games—this academy could easily be <u>two days</u>! I was hoping to bring home <u>much</u> more info on aligning <u>my</u> curriculum w/ CCSSM. Tues & Wed afternoon felt like I was back in EDCU 101—We were selected to be a part of this because we are experienced teachers. DO NOT treat us like first year teachers with silly strategies & ice breakers & team builders—Never got to the <u>Meat!</u>”</p> <p>“A lot of wasted time! I don’t need ice breakers. If I want to meet other people I can do that on my own. Less teaching 101 would have given more time to understanding my standards and aligning my program to them. Have binders ready to go. Saves time passing out papers. I still feel very lost and overwhelmed and had hoped to go home feeling confident in what I need to do.”</p> <p>“I understand the need for repetition, however, I think the structure was an overkill; leadership training was more of same, but no clear plan—I need help with implementation—not listing things I already know about.”</p>
<p>B. Participants recommended more time and clarification of the assessment section of the academy.</p>	<p>“The assessment section was very tough due to the problem given—didn’t go with the CCSS that was presented.”</p> <p>“Assessment was also an area of concern as this is a very weak link in the instruction this week.”</p> <p>“The leadership group missed out on the assessment piece! I would have liked to see that.”</p> <p>“More time for assessment part.”</p>

Question 3: What additional support do you need to implement the MC2 CCSSM protocols with others at your school or district? Please be specific.

<i>Major Themes</i>	<i>Selected Comments</i>
<p>A. Participants are looking for continuous support from the MC² facilitators to ensure the implementation of standards in the classrooms.</p>	<p>“I will need support in planning for the implementation of the standards <u>in the classroom.</u>”</p> <p>“More specific practices. How does the common core classroom look over a week? How are standards met? Maybe an example weekly/monthly plan of X activity, Y follow up, Z assessment.”</p> <p>“I think having a resource contact from MC2 would be useful to help answer any questions or situations which may arise.”</p> <p>“We will need more support once we get back to our school & try to teach our fellow teachers about CC. Having a support system that comes to the district site to help us is a huge sigh of relief!”</p> <p>“I would like to have an MC2 staff member come to our district once in a while to make sure we are on the right track when it comes to CCSSM.”</p>

Question 4: As a result of my attendance at this academy I plan to take the following action steps back in my district:

<i>Major Themes</i>	<i>Selected Comments</i>
<p>A. Academy participants hope to share what they have learned at the academy with their colleagues and enact that learning in their classrooms.</p>	<p>“Help in facilitating the preparation for implementation. Assist in envisioning the standards in my school. Can be a resource person/math consultant in order to help teachers fully comprehend the math content for grade school teachers.”</p> <p>“Talk/discuss CCSSM history, structure to my colleagues with confidence. Use the Math Practices comfortably.”</p> <p>“1. Get updated materials. 2. Study standards and change my methods accordingly. 3. Work with other teachers to make plans.”</p> <p>“My goal is to collaborate with my peers about the practices and then work to develop lessons w/ a deeper cognitive demand.”</p> <p>“I plan to: Implement many if not all of the mathematical practices. Make stronger goals—<u>more</u> kid friendly, lead math class with the CCSS no matter the math curriculum.”</p> <p>“Review materials Organize my thoughts Present to my grade level Present to my school.”</p>



MC² CCSSM Academy Participant Evaluations
Los Lunas: July 30-August 3, 2012

Number of Evaluations Completed: 104

What grade level sessions did you attend?

K-2 (23) 3-5 (27) 6-8 (17) high school (16) 2-day leadership only (10) various sessions (4) no response (7)

What is your position?

teacher (67) district administrator (9) campus administrator (3) instructional coach (13)
 teacher and campus administrator (2) other (1) no response (9)

If you circled teacher, what kind?

regular education (60) special education (6) bilingual/dual language (2) gifted/talented (0) no response (1)

Los Lunas MC² Academy		No Basis for a Response	Strongly Disagree ①	Disagree ②	Agree ③	Strongly Agree ④	Mean Rating
Percent of Responses							
Materials	1. The academy materials were useful and informative.	0%	0%	1%	36%	63%	3.6
	2. The academy materials directly supported the goals of the academy.	0%	0%	0%	30%	70%	3.7
	3. I will use the academy materials when I train others in the use of the CCSSM.	0%	0%	2%	25%	74%	3.7
Instruction	4. The goals and objectives of the academy were clear.	0%	0%	2%	31%	66%	3.6
	5. The academy was paced well (was neither too fast nor too slow).	0%	6%	6%	47%	42%	3.2
	6. The academy was designed appropriately (instruction segments were not too large and built on one another effectively).	0%	3%	7%	33%	57%	3.4
Facilitation	7. The facilitators were organized and well-prepared.	0%	0%	1%	25%	74%	3.7
	8. The facilitators modeled concepts in ways that promoted learning and understanding.	0%	0%	1%	25%	74%	3.7
	9. The facilitators demonstrated expertise in the CCSSM.	0%	0%	0%	23%	77%	3.8
Effectiveness	10. The academy enhanced my knowledge of the CCSS for mathematics.	1%	0%	2%	25%	73%	3.7
	11. I feel more confident in my ability to teach others about the CCSSM.	0%	0%	5%	47%	48%	3.4
	12. The goals and objectives of the academy were met.	0%	0%	2%	34%	64%	3.6

In addition to responding to the Likert Scale above, the participants at the Los Lunas Academy were also asked to address four questions. After analyzing their responses, certain major themes emerged. Those themes along with selected comments can be found below.

Question 1: What aspects of the academy did you find most useful? Why?	
<i>Major Themes</i>	<i>Selected Comments</i>
<p>A. Demonstrating/modeling math practices throughout the academy increased participants understanding of the application of the CCSSM.</p>	<p>“The critical areas were extremely useful because it allows teachers to see the meat (focus) of the math curriculum. Math practices were great in that they really made us think about lesson planning with these in minds.”</p> <p>“Math practices as a framework for learning of information was useful. I plan to use them in the classroom to promote student learning.”</p> <p>“Some of the protocols will be useful in unpacking the standards at our school. The sentence stems for math practices is something that can be taught and implemented with our work and our students.”</p> <p>“The demonstrated lessons that showed a math practice in action was useful.”</p> <p>“I really enjoyed the best practices because it will help me build the students’ self-esteem toward math.”</p> <p>“It was very useful to go through the standards and see how we can put the math practices into each of our lesson.”</p>
<p>B. The collaborative work between participants allowed for better understanding of CCSSM.</p>	<p>“The ability to have time to collaborate with members of my school and at time with others was very helpful. I learned so much from other during this workshop.”</p> <p>“I enjoyed the opportunity to learn from amazing educators. I especially appreciated the opportunities for cooperative learning and district collaboration. We have never had this opportunity of collaboration or training in our school.”</p> <p>“Working with the teachers and listening to their thoughts. Most useful to see the enormous amount of work that the teachers did- all that useful.”</p> <p>“The collaboration, support materials and the amazing instructors.”</p> <p>“I found it helpful to be able to have conversation with our group.”</p>

Question 2: What part of the academy would you suggest changing to make it better (e.g. structure, presenters, content)?

<i>Major Theme</i>	<i>Selected Comments</i>
A. Respondents recommended more time during the academy to analyze math standards and practices throughout the academy.	<p>“I would focus more on the standards themselves rather than just the math practices. I also think more practice problems would have been helpful.”</p> <p>“I think it would have been very useful to continue analyzing each of the math standards and relating them to the math practices. I found it very useful to break down thoroughly investigate /understand each standard.”</p> <p>“I would have liked to break down /look at more math practices.”</p> <p>“More time to allow analyzing the standards and seeing connection across grades.”</p>

Question 3: What additional support do you need to implement the MC2 CCSSM protocols with others at your school or district? Please be specific.

<i>Major Themes</i>	<i>Selected Comments</i>
A. Participants are looking for continuous support from the MC² facilitators to ensure appropriate implementation.	<p>“Personnel to be available via email, phone, or text if I have a question. Meeting with our MC² team to advise and gave feedback upon needed.”</p> <p>“Having an experienced facilitator at one or two of staff development sessions would be helpful, more so to observe, debrief and respond to the session leaders in order to make changes to improve process.”</p> <p>“Will need a lot of help implementing this to our staff that can be very unacceptable of change.”</p> <p>“Support for implementing/questions.”</p> <p>“Protocol training support for how to work with teachers with increasing their math content knowledge base.”</p> <p>“Continued professional development not only at my site but across district.”</p> <p>“More training or a mentor to contact.”</p>
B. Participants are seeking more time to implement the CCSSM in their school and classroom.	<p>“We need more time to meet with all schools to be more effective with the standards.”</p> <p>“More time to meet with staff to unpack the standards.”</p> <p>“More time to go apply with my students and then debrief with other teachers.”</p>

Question 4: As a result of my attendance at this academy I plan to take the following action steps back in my district:

<i>Major Themes</i>	<i>Selected Comments</i>
<p>A. Academy participants plan to develop an implementation plan with their colleagues.</p>	<p>“-Introduce with academic coach support the 8 mathematical thinking practices -Teach with academic coach support the protocol of taking 1 CCSSM standards and breaking it down at each grade level - Create the poster of it and posting it k-6 to view as a staff, the progression of that skills from beginning to end -Bring the curriculum gaps to focus attention and notify grade level in order to implement immediate changes -Compare critical areas across grade level bands.”</p> <p>“-Introducing critical areas -Following norms during collaboration -Look for teachers within my school that model math practices to use them as a resource.”</p> <p>“Discuss with my district administration how I can implement MC+CCSSM ideas, strategies, in my role as a reading coach.”</p> <p>“-Work with the implementation team to enlighten others at this process -Make myself useful available to answer any question and share knowledge.”</p> <p>“-Share my knowledge with colleagues -Make myself available for questions -Change my practices as a leader.”</p>
<p>B. Participants plan to enact the CCSS and Mathematical Practices in the classroom to enhance student learning.</p>	<p>“-Explore the 4 critical areas of math -Implement them gradually in my lesson plan -Tweak them -Continue with math practices in the same manner, then standards, best practices, how this applies to my teaching calendar.”</p> <p>“I plan to implement all I learned in my class and helping inform others across the district about everything I have learned.”</p> <p>“Apply what I have learned and use in my classroom, and share with my grade level member.”</p> <p>“Thoughtful planning and small steps in my classroom.”</p>

SUMMARY OF FINDINGS

PRE- POST SURVEY INSTRUMENT

- There were 577 matched cases of participants who had taken both the pre- and post-survey. The chart below shows how many cases were matched for each of the different grade level sessions.

Grades K-2	Grades 3-5	Grades 6-8	High School
174	193	109	101

- As shown in the chart below, mean ratings rose substantially (generally one full point or more) in all grade level sessions between the first and second administrations of the survey. These gains indicate that participants felt more confident in sharing knowledge about the CCSSM with their colleagues after attending the academy.

Mean Ratings for Pre- and Post-Survey Results (1=not at all, 2=somewhat, 3=to a great extent, and 4=completely)	Grades K-2 (174 matched cases)		Grades 3-5 (193 matched cases)		Grades 6-8 (109 matched cases)		High School (101 matched case)	
	Pre-Survey	Post-Survey	Pre-Survey	Post-Survey	Pre-Survey	Post-Survey	Pre-Survey	Post-Survey
I am able to...								
1. ...share the structure of the CCSSM with teachers and administration in my school or district.	1.8	3.0	1.9	3.0	1.9	3.1	1.9	3.1
2. ...share how Mathematical Practices and Numbered Standards will be enacted in classrooms.	1.7	3.0	1.7	3.0	1.7	3.0	1.8	3.1
3. ...share the critical areas for the grade level I teach.	2.1	3.2	1.9	3.2	2.1	3.2	2.1	3.0
4. ...share the critical areas for the grade levels above and below the one I teach.	1.7	2.7	1.6	2.7	1.7	2.6	1.8	2.6
5. ...share the critical areas for all the grade levels at my campus.	1.5	2.5	1.5	2.6	1.6	2.6	1.8	2.7
6. ...design cognitively demanding tasks to support the CCSSM.	1.6	2.8	1.6	2.8	1.7	2.7	1.7	2.8
7. ...share instructional strategies with my colleagues that support the CCSSM.	1.8	3.0	1.8	3.0	1.8	3.0	1.9	3.0
8. ...design formative assessment tasks to analyze student understanding of the CCSSM.	1.6	2.7	1.6	2.7	1.6	2.7	1.8	2.7

**RESULTS FROM EACH ACADEMY
PRE- POST-SURVEY INSTRUMENT**

Alamogordo MC² CCSSM Academy

June 11-15, 2012

Using the Likert scale described below, participants were asked to describe how knowledgeable they felt about the following statements on the first day of the academy and on the last day of the academy.

0=No basis for an answer 1=Not at all 2=Somewhat 3=To a great extent 4=Completely

As shown below, mean ratings rose substantially (generally close to one full point or more) in K-2, 3-5, and high school sessions. Grade 6-8 participants with matched scores generally indicated less growth.

Mean Ratings for Pre- and Post-Survey Results	Grades K-2 (13 matched cases)		Grades 3-5 (12 matched cases)		Grades 6-8 (12 matched cases)		High School (1 matched case)	
	Pre-Survey	Post-Survey	Pre-Survey	Post-Survey	Pre-Survey	Post-Survey	Pre-Survey	Post-Survey
I am able to...								
1. ...share the structure of the CCSSM with teachers and administration in my school or district.	1.9	2.8	1.9	3.3	2.7	3.1	2.0	4.0
2. ...share how Mathematical Practices and Numbered Standards will be enacted in classrooms.	2.0	3.0	1.9	3.1	1.9	2.9	2.0	4.0
3. ...share the critical areas for the grade level I teach.	2.2	3.1	2.2	3.4	2.6	3.3	2.0	3.0
4. ...share the critical areas for the grade levels above and below the one I teach.	1.6	2.5	1.6	2.8	1.8	2.5	2.0	3.0
5. ...share the critical areas for all the grade levels at my campus.	1.6	1.9	1.7	2.7	1.7	2.3	2.0	3.0
6. ...design cognitively demanding tasks to support the CCSSM.	1.9	2.8	1.8	3.0	1.9	2.8	2.0	4.0
7. ...share instructional strategies with my colleagues that support the CCSSM.	1.9	2.9	1.7	3.2	2.0	2.8	1.0	4.0
8. ...design formative assessment tasks to analyze student understanding of the CCSSM.	1.8	2.8	1.5	2.7	1.8	2.9	2.0	4.0

Albuquerque MC² CCSSM Academy

July 30-August 3, 2012

Using the Likert scale described below, participants were asked to describe how knowledgeable they felt about the following statements on the first day of the academy and on the last day of the academy.

0=No basis for an answer 1=Not at all 2=Somewhat 3=To a great extent 4=Completely

The Albuquerque Academy provided professional development sessions for K-2 and 3-5 only. As shown below, mean ratings rose substantially (generally one full point or more) in both K-2 and 3-5 sessions.

Mean Ratings for Pre- and Post-Survey Results	Grades K-2 (38 matched cases)		Grades 3-5 (29 matched cases)		Grades 6-8		High School	
	Pre-Survey	Post-Survey	Pre-Survey	Post-Survey	Pre-Survey	Post-Survey	Pre-Survey	Post-Survey
I am able to...								
1. ...share the structure of the CCSSM with teachers and administration in my school or district.	2.2	3.3	2.3	3.2				
2. ...share how Mathematical Practices and Numbered Standards will be enacted in classrooms.	1.8	3.3	2.0	3.1				
3. ...share the critical areas for the grade level I teach.	2.3	3.3	2.0	3.3				
4. ...share the critical areas for the grade levels above and below the one I teach.	1.9	2.8	1.7	2.8				
5. ...share the critical areas for all the grade levels at my campus.	1.7	2.7	1.6	2.9				
6. ...design cognitively demanding tasks to support the CCSSM.	1.8	3.1	2.1	3.0				
7. ...share instructional strategies with my colleagues that support the CCSSM.	2.0	3.2	2.3	3.3				
8. ...design formative assessment tasks to analyze student understanding of the CCSSM.	1.7	2.9	2.0	3.0				

Artesia MC² CCSSM Academy

June 18-22, 2012

Using the Likert scale described below, participants were asked to describe how knowledgeable they felt about the following statements on the first day of the academy and on the last day of the academy.

0=No basis for an answer 1=Not at all 2=Somewhat 3=To a great extent 4=Completely

As shown below, mean ratings rose substantially (generally one full point or more) in K-2, 3-5, and 6-8 sessions. High school participants with matched scores generally indicated that they started more knowledgeable and made slightly less growth.

Mean Ratings for Pre- and Post-Survey Results	Grades K-2 (33 matched cases)		Grades 3-5 (32 matched cases)		Grades 6-8 (22 matched cases)		High School (20 matched cases)	
	Pre-Survey	Post-Survey	Pre-Survey	Post-Survey	Pre-Survey	Post-Survey	Pre-Survey	Post-Survey
I am able to...								
1. ...share the structure of the CCSSM with teachers and administration in my school or district.	1.5	3.0	1.7	2.8	1.8	3.0	2.0	2.9
2. ...share how Mathematical Practices and Numbered Standards will be enacted in classrooms.	1.4	3.0	1.6	2.9	1.7	3.0	2.0	3.1
3. ...share the critical areas for the grade level I teach.	1.9	3.2	2.0	3.2	2.0	2.9	2.0	2.9
4. ...share the critical areas for the grade levels above and below the one I teach.	1.5	2.5	1.6	2.6	1.8	2.5	2.0	2.6
5. ...share the critical areas for all the grade levels at my campus.	1.2	2.4	1.5	2.6	1.8	2.8	2.1	2.7
6. ...design cognitively demanding tasks to support the CCSSM.	1.4	2.7	1.6	2.8	1.8	2.9	1.9	2.9
7. ...share instructional strategies with my colleagues that support the CCSSM.	1.7	2.9	1.8	2.9	1.9	3.0	2.1	3.0
8. ...design formative assessment tasks to analyze student understanding of the CCSSM.	1.5	2.7	1.7	2.6	1.5	2.6	1.8	2.7

Farmington MC² CCSSM Academy

June 4-8, 2012

Using the Likert scale described below, participants were asked to describe how knowledgeable they felt about the following statements on the first day of the academy and on the last day of the academy.

0=No basis for an answer 1=Not at all 2=Somewhat 3=To a great extent 4=Completely

As shown below, mean ratings rose substantially (generally more than one full point) after the professional development had been completed.

Mean Ratings for Pre- and Post-Survey Results	Grades K-2 (12 matched cases)		Grades 3-5 (13 matched cases)		Grades 6-8 (19 matched cases)		High School (15 matched case)	
	Pre-Survey	Post-Survey	Pre-Survey	Post-Survey	Pre-Survey	Post-Survey	Pre-Survey	Post-Survey
I am able to...								
1. ...share the structure of the CCSSM with teachers and administration in my school or district.	1.8	3.0	1.5	3.2	1.5	3.0	1.7	2.7
2. ...share how Mathematical Practices and Numbered Standards will be enacted in classrooms.	1.4	3.2	1.6	3.2	1.4	2.7	1.4	2.7
3. ...share the critical areas for the grade level I teach.	2.0	3.3	2.3	3.5	1.6	3.2	1.9	3.1
4. ...share the critical areas for the grade levels above and below the one I teach.	1.6	2.8	2.0	2.9	1.4	2.5	1.7	2.4
5. ...share the critical areas for all the grade levels at my campus.	1.5	2.4	1.7	2.8	1.5	2.6	1.5	2.4
6. ...design cognitively demanding tasks to support the CCSSM.	1.8	2.9	1.8	3.0	1.3	2.6	1.4	2.5
7. ...share instructional strategies with my colleagues that support the CCSSM.	1.8	2.8	1.8	3.0	1.4	2.9	1.6	2.6
8. ...design formative assessment tasks to analyze student understanding of the CCSSM.	1.8	2.3	1.8	2.7	1.4	2.5	1.9	2.3

Gallup MC² CCSSM Academy

June 4-8, 2012

Using the Likert scale described below, participants were asked to describe how knowledgeable they felt about the following statements on the first day of the academy and on the last day of the academy.

0=No basis for an answer 1=Not at all 2=Somewhat 3=To a great extent 4=Completely

As shown below, mean ratings rose substantially (generally at least one full point) after the professional development had been completed.

Mean Ratings for Pre- and Post-Survey Results	Grades K-2 (17 matched cases)		Grades 3-5 (27 matched cases)		Grades 6-8 (8 matched cases)		High School (19 matched cases)	
	Pre-Survey	Post-Survey	Pre-Survey	Post-Survey	Pre-Survey	Post-Survey	Pre-Survey	Post-Survey
I am able to...								
1. ...share the structure of the CCSSM with teachers and administration in my school or district.	1.6	2.9	2.0	2.9	2.0	3.0	1.9	3.2
2. ...share how Mathematical Practices and Numbered Standards will be enacted in classrooms.	1.8	2.8	1.7	3.0	2.1	3.1	1.8	3.1
3. ...share the critical areas for the grade level I teach.	2.0	3.2	2.0	3.0	2.4	3.5	2.1	3.2
4. ...share the critical areas for the grade levels above and below the one I teach.	1.8	2.6	1.6	2.6	1.8	2.6	1.7	2.7
5. ...share the critical areas for all the grade levels at my campus.	1.4	2.4	1.4	2.6	1.8	2.5	1.6	2.6
6. ...design cognitively demanding tasks to support the CCSSM.	1.5	2.8	1.5	2.7	2.0	3.3	1.7	3.0
7. ...share instructional strategies with my colleagues that support the CCSSM.	1.8	3.0	1.6	2.9	2.4	3.3	1.9	3.1
8. ...design formative assessment tasks to analyze student understanding of the CCSSM.	1.5	2.5	1.5	2.5	1.6	2.8	1.7	2.7

Las Cruces MC² CCSSM Academy

June 11-15, 2012

Using the Likert scale described below, participants were asked to describe how knowledgeable they felt about the following statements on the first day of the academy and on the last day of the academy.

0=No basis for an answer 1=Not at all 2=Somewhat 3=To a great extent 4=Completely

As shown below, mean ratings generally rose less than one point for the Grade K-2, Grade 3-5, and Grade 6-8 sessions. High school participants with matched scores indicated even less growth.

Mean Ratings for Pre- and Post-Survey Results	Grades K-2 (9 matched cases)		Grades 3-5 (17 matched cases)		Grades 6-8 (19 matched cases)		High School (9 matched case)	
	Pre-Survey	Post-Survey	Pre-Survey	Post-Survey	Pre-Survey	Post-Survey	Pre-Survey	Post-Survey
I am able to...								
1. ...share the structure of the CCSSM with teachers and administration in my school or district.	2.1	3.3	2.2	2.9	2.1	3.2	2.4	2.8
2. ...share how Mathematical Practices and Numbered Standards will be enacted in classrooms.	2.0	3.1	1.6	2.9	2.1	3.2	2.2	2.9
3. ...share the critical areas for the grade level I teach.	2.4	3.0	1.8	3.1	2.5	3.2	2.3	2.6
4. ...share the critical areas for the grade levels above and below the one I teach.	2.2	2.8	1.5	2.7	1.9	2.7	2.0	2.4
5. ...share the critical areas for all the grade levels at my campus.	2.1	3.0	1.6	2.4	1.5	2.7	2.2	2.7
6. ...design cognitively demanding tasks to support the CCSSM.	1.9	2.8	1.6	2.7	2.0	2.6	1.9	2.4
7. ...share instructional strategies with my colleagues that support the CCSSM.	1.9	2.8	1.8	2.8	2.1	3.1	2.3	3.0
8. ...design formative assessment tasks to analyze student understanding of the CCSSM.	1.8	2.7	1.7	2.6	1.9	2.8	2.0	2.4

Las Vegas MC² CCSSM Academy

June 18-22, 2012

Using the Likert scale described below, participants were asked to describe how knowledgeable they felt about the following statements on the first day of the academy and on the last day of the academy.

0=No basis for an answer 1=Not at all 2=Somewhat 3=To a great extent 4=Completely

As shown below, mean ratings rose substantially (generally one full point or more) in K-2, 3-5, and 6-8 sessions. High school participants with matched scores generally indicated that they started more knowledgeable and made slightly less growth.

Mean Ratings for Pre- and Post-Survey Results	Grades K-2 (25 matched cases)		Grades 3-5 (36 matched cases)		Grades 6-8 (11 matched cases)		High School (20 matched cases)	
	Pre-Survey	Post-Survey	Pre-Survey	Post-Survey	Pre-Survey	Post-Survey	Pre-Survey	Post-Survey
I am able to...								
1. ...share the structure of the CCSSM with teachers and administration in my school or district.	1.7	2.9	1.6	2.9	1.8	2.9	1.9	3.3
2. ...share how Mathematical Practices and Numbered Standards will be enacted in classrooms.	1.6	2.8	1.4	2.8	1.5	3.1	1.9	3.1
3. ...share the critical areas for the grade level I teach.	1.9	3.2	1.7	3.2	2.1	2.9	2.3	3.0
4. ...share the critical areas for the grade levels above and below the one I teach.	1.6	2.6	1.4	2.7	1.9	2.9	1.9	2.5
5. ...share the critical areas for all the grade levels at my campus.	1.4	2.2	1.3	2.4	1.6	2.5	1.8	2.7
6. ...design cognitively demanding tasks to support the CCSSM.	1.5	2.6	1.3	2.7	1.5	2.5	1.7	2.8
7. ...share instructional strategies with my colleagues that support the CCSSM.	1.6	2.7	1.4	2.9	1.8	2.8	2.0	2.9
8. ...design formative assessment tasks to analyze student understanding of the CCSSM.	1.4	2.4	1.3	2.5	1.5	2.5	1.9	2.8

Los Lunas MC² CCSSM Academy

July 30-August 3, 2012

Using the Likert scale described below, participants were asked to describe how knowledgeable they felt about the following statements on the first day of the academy and on the last day of the academy.

0=No basis for an answer 1=Not at all 2=Somewhat 3=To a great extent 4=Completely

As shown below, mean ratings rose substantially (generally more than one full point) after the professional development had been completed.

Mean Ratings for Pre- and Post-Survey Results	Grades K-2 (27 matched cases)		Grades 3-5 (27 matched cases)		Grades 6-8 (18 matched scores)		High School (17 matched scores)	
	Pre-Survey	Post-Survey	Pre-Survey	Post-Survey	Pre-Survey	Post-Survey	Pre-Survey	Post-Survey
I am able to...								
1. ...share the structure of the CCSSM with teachers and administration in my school or district.	1.9	3.0	1.9	3.1	1.7	3.2	1.7	3.2
2. ...share how Mathematical Practices and Numbered Standards will be enacted in classrooms.	1.6	3.0	1.7	2.9	1.7	2.9	1.4	3.4
3. ...share the critical areas for the grade level I teach.	2.0	3.3	1.9	3.4	2.0	3.3	2.1	3.1
4. ...share the critical areas for the grade levels above and below the one I teach.	1.8	2.8	1.4	2.9	1.5	2.6	1.8	2.6
5. ...share the critical areas for all the grade levels at my campus.	1.6	2.7	1.5	2.6	1.6	2.5	1.8	2.8
6. ...design cognitively demanding tasks to support the CCSSM.	1.6	2.9	1.6	2.9	1.4	2.5	1.6	2.9
7. ...share instructional strategies with my colleagues that support the CCSSM.	1.6	3.0	1.9	3.1	1.6	2.9	1.8	3.1
8. ...design formative assessment tasks to analyze student understanding of the CCSSM.	1.6	2.7	1.6	2.9	1.5	2.7	1.8	2.8



MC² CCSSM Academy Participant Evaluation Form
Summer 2012

Academy Location: _____ Date: _____

Participant's District: _____

Please circle the appropriate response:

What grade level sessions did you attend? K-2 3-5 6-8 high school 2-day leadership only

What is your position? teacher district administrator campus administrator math coach
 other (please specify) _____

If you circled teacher, what kind? regular education special education bilingual/dual language
 gifted/talented other (please specify) _____

Please rate each of the items below by <u>drawing a circle</u> around the rating that best describes your learning experience at the MC ² Summer Common Core State Standards for Mathematics Academy.		No Basis for a Response	Strongly Disagree	Disagree	Agree	Strongly Agree
Materials	1. The academy materials were useful and informative.	0	1	2	3	4
	2. The academy materials directly supported the goals of the academy.	0	1	2	3	4
	3. I will use the academy materials when I train others in the use of the CCSSM.	0	1	2	3	4
Instruction	4. The goals and objectives of the academy were clear.	0	1	2	3	4
	5. The academy was paced well (was neither too fast nor too slow).	0	1	2	3	4
	6. The academy was designed appropriately (instruction segments were not too large and built on one another effectively).	0	1	2	3	4
Facilitation	7. The facilitators were organized and well-prepared.	0	1	2	3	4
	8. The facilitators modeled concepts in ways that promoted learning and understanding.	0	1	2	3	4
	9. The facilitators demonstrated expertise in the CCSSM.	0	1	2	3	4
Effectiveness	10. The academy enhanced my knowledge of the CCSS for mathematics.	0	1	2	3	4
	11. I feel more confident in my ability to teach others about the CCSSM.	0	1	2	3	4
	12. The goals and objectives of the academy were met.	0	1	2	3	4

evaluation continued on the back



MC² CCSSM Academies Summer 2012
Participant Evaluation (continued)

I. What aspects of the academy did you find most useful? Why?

**II. What part of the academy would you suggest changing to make it better?
(e.g., structure, presenters, content)**

III. What additional support do you need to implement the MC² CCSSM protocols with others at your school or district? (Please be specific.)

IV. As a result of my attendance at this academy I plan to take the following action steps back in my district:


APPENDIX B

Participant's Name _____

Academy Location: _____ Date: _____

Grade Level Attended: (Circle one.) K-2 3-5 6-8 high school 2-day leadership only

I previously attended an MC² CCSSM Session in Spring 2012. (Circle one.) YES NO

 MC² CCSSM Academy Summer 2012 Please darken the number you feel best describes how knowledgeable you feel about the following statements. I am able to...	No basis for an answer	Not at all	Somewhat	To a great extent	Completely
1....share the structure of the CCSSM with teachers and administration in my school or district.	①	②	③	④	⑤
2....share how Mathematical Practices and Numbered Standards will be enacted in classrooms.	①	②	③	④	⑤
3....share the critical areas for the grade level I teach.	①	②	③	④	⑤
4....share the critical areas for the grade levels above and below the one I teach.	①	②	③	④	⑤
5....share the critical areas for all the grade levels at my campus.	①	②	③	④	⑤
6....design cognitively demanding tasks to support the CCSSM.	①	②	③	④	⑤
7....share instructional strategies with my colleagues that support the CCSSM.	①	②	③	④	⑤
8....design formative assessment tasks to analyze student understanding of the CCSSM.	①	②	③	④	⑤

continued on the back    

Grades K-2

Consider the following problem:

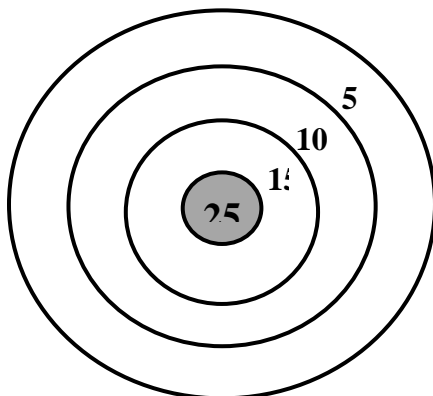
Juanita has some nickels. Jorge gives her three more. Now Juanita has nine nickels. How many nickels did Juanita start with?

(a) Write an equation to describe the problem.

(b) Describe how a student could use manipulatives to solve the problem.

Grades 3-5

Jay shot 4 arrows at the target. His total score was 45. Which of these scores is NOT a possible result of Jay's 4 shots?



Please circle the choice which is NOT possible.

- a. $25 + (2 \times 5) + 10$
- b. $15 + (3 \times 10)$
- c. $(2 \times 15) + 10 + 5$
- d. $25 + 5 + (2 \times 10)$

Give a detailed mathematical explanation for your choice in the box below.

Grades 6-8

Reading Rates

Thomas reads at a rate of $\frac{9}{5}$ pages per minute. He read the $15\frac{1}{2}$ pages on Monday.

Tuesday

1a. Write an equation that can be used to find the time spent reading on Tuesday so that the total pages read for both Monday and Tuesday is $30\frac{1}{3}$ pages. For your equation describe what each number and letter represents (including any units).

1b. Describe two strategies you can use to solve the equation and explain why they make sense to use with this problem.

Wednesday

2. All students (including Thomas) need to read $22\frac{1}{2}$ pages on Wednesday. Ted, who can read $2\frac{1}{4}$ pages per minute, was late for class. He started reading 3 minutes after the other students had already started. Write and describe a mathematical statement that can be used to determine if Ted catches up to Thomas.

High School

Jack and Jill have a six-acre farm on which they grow corn and beans. The farm has rights to six acre-feet of water. An acre of corn needs one and a half acre feet of water. An acre of beans needs one-half an acre foot of water. How many acres should they plant in beans and in corn?

In the box below, give a detailed mathematical explanation for your answer.

APPENDIX C

RESULTS FROM THE PILOT MATHEMATICS PROBLEMS

Process

The process used to determine changes in participant responses to the piloted mathematics problems on the pre- post-survey instrument consisted of several steps:

- 1) All pre- post-surveys were matched by participant name to ensure that the pre-survey and post-survey were completed by the same person; names were replaced by identifying numbers to mask the participants identities.
- 2) A representative sample from each grade level (K-2, 3-5, 6-8, and high school) at each academy was randomly selected (approximately 10% of the total number of matches).
- 3) Volunteers from the MC² staff were given the selected pre- post-survey mathematics responses and asked to simply list some of the changes they observed between the pre- and post-responses. Two volunteers independently examined the responses, and then met or communicated through e-mail to determine if their analyses were similar.

Findings

The nature and rigor of the mathematics problem chosen for the pilot study seemed to have a noticeable impact on the change in participant responses. Responses to problems that were perhaps too easy (Grades 3-5) or too difficult (Grades 6-8) resulted in very little difference between pre- and post-test responses.

Grades K-2: Post-survey responses generally gave different or more representations than pre-survey responses.

Grades 3-5: Post-survey responses were generally the same as the pre-test responses.

Grades 6-8: While the participants generally seemed more determined to "figure out" the mathematics on the post-test (perseverance), neither the responses to the pre-survey nor the responses to the post-survey adequately addressed the various questions posed in the problem.

High School: Post-survey responses, unlike the pre-survey responses, generally included the use of several of the mathematics practices from the Common Core State Standards. For example, participants used much more representation in the post-survey answers. While many initial responses utilized an algorithm for solving the problem, responses in the post-survey included explanations. Post-survey responses were also generally more complete, precise, and organized than the responses to the pre-survey.

Future Considerations

The inclusion of a mathematics problem as part of an evaluation protocol is a promising practice. A pre- and post-assessment can help to determine whether the participants not only learned what was expected of them during the course of the professional development, but also whether they can apply what they had learned to actual grade-specific mathematics tasks. To ensure meaningful and accurate evaluation in the future, the mathematics problems need to undergo a more rigorous screening process and specific scoring rubrics must be developed. Independent evaluators (not associated with the professional development provided) must be trained in the use of these rubrics.