



CONSORTIUM FOR POLICY RESEARCH IN EDUCATION

Evaluation of the GE Foundation-
Supported Coaching &
Demonstration Schools Initiative in
Erie Public Schools, SY 2012-2013

WORKING PAPER

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GE Foundation

GE Foundation *Developing Futures*TM in Education

EVALUATION SERIES

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About GE Foundation and the Developing Futures™ in Education Program

For more than 50 years, GE Foundation has invested in education programs based on a fundamental premise: a quality education ushers in a lifetime of opportunity, which helps build a strong and diverse citizenry to work and live in an increasingly competitive world. The GE Foundation believes that a quality education can help prepare young Americans – especially those in underserved urban districts – for careers in a global economy.

The GE Foundation is addressing this education imperative by supporting high-impact initiatives that improve access to, and the equity and quality of, public education. The Developing Futures™ in Education program is one such endeavor, created to raise student achievement through improved mathematics and science curricula and management capacity in schools. The program has been expanded with a grant investment of over \$200 million in seven targeted U.S. school districts.

School districts use their grants to develop a rigorous, system-wide mathematics and science curriculum and provide comprehensive professional development for their teachers. Working with the GE Foundation, districts have made more efficient management of human resources using GE's Six Sigma, developing educational leaders to coach others and model best practices, implementing GE's process management tools, and developing IT systems and capacity to use data to better inform decision making. More recently, with GE Foundation leadership, partner districts have increasingly focused on implementation of the new Common Core State Standards.

About Consortium for Policy Research in Education (CPRE)

The Consortium for Policy Research in Education (CPRE) brings together education experts from renowned research institutions to contribute new knowledge that informs K-12 education policy and practice. Our work is available for free to education policymakers, practitioners, and researchers at cpre.org. Since 2010, CPRE has conducted the external evaluation of the Developing Futures™ in Education program for the GE Foundation. In addition to this report, CPRE recently published an evaluation titled *The Impact of the GE Foundation Developing Futures™ in Education Program on Mathematics Performance Trends in Four Districts* available at cpre.org/df.

CPRE's member institutions are the University of Pennsylvania, Teachers College Columbia University, Harvard University, Stanford University, University of Michigan, University of Wisconsin-Madison, and Northwestern University.



Executive Summary

This evaluation report summarizes the evidence of the implementation and early impacts of the General Electric Foundation's (GEF) Demonstration Schools Initiative in the Erie Public School district (EPS) conducted by the Consortium for Policy Research in Education (CPRE) during the 2012-2013 school year. The Demonstration Schools Initiative provided intensive support to four schools (two elementary, one middle, and one high) implementing the Common Core State Standards (CCSS) in mathematics and English language arts. Concurrently during the 2012-2013 school year, EPS also continued their implementation of another GEF-supported initiative—the Coaching Initiative—using a cadre of instructional coaches in mathematics, science, and ELA for the other schools in the district.

In both the Coaching and Demonstration School Initiatives, instructional coaches are key agents of change. Their function is to target and customize the support needed at the building, grade, and teacher levels to shift teachers' understanding and practice to align to the CCSS. For the Demonstration Schools Initiative, coaches also focused much of their time trying to develop professional learning communities (PLCs) within their schools.

This evaluation was designed to answer three overarching questions:

1. Did teachers in the Demonstration Schools gain more knowledge of the CCSS as a result of their participation in the GEF-supported initiative?
2. What were the impacts of the initiative for the teachers in the GEF- Foundation supported Demonstration Schools compared to the rest of the district?
3. How did teachers perceive their respective coaches throughout the district?

This report summarizes findings from the evaluation of the Coaching and Demonstration Schools Initiatives in EPS conducted by the Consortium for Policy Research in Education (CPRE) during the inaugural year of the Demonstration Schools Initiative (SY 2012-2013). Findings are based on multiple surveys conducted over the course of the school year and include: evidence of professional development (PD), preparation to implement CCSS, ELA and mathematics classroom practices, CCSS teacher knowledge, perceptions of coaching, and other factors influencing implementation. This executive summary focuses on some of the broad findings in the full report.

CPRE's evaluation found that there was a significant increase in PD in CCSS (general, ELA, and mathematics), and that much of the PD was well received. There is also evidence that as the year progressed, Demonstration School teachers felt more prepared to implement both the CCSS and respective ELA or mathematics instructional practices related to the CCSS. Finally, by the end of the year, the teachers at the Demonstration Schools exhibited more knowledge of the CCSS than those teachers in the comparison group.

The Demonstration School and district coaches were an important factor in implementing the CCSS. CPRE researchers found that, overall, a majority of teachers had confidence in their mathematics and ELA coaches, and felt that the respective coaching activities were appropriate for their needs. Many teachers found the teacher-team meetings and PLCs to be a valuable component of their PD as well.

Overall, the data presented in this report shows that the first year (SY 2012-2013) of the Demonstration Schools Initiative has been successful several ways (e.g., growth PD, and growth in feelings of preparedness to implement CCSS). EPS Demonstration Schools, with their respective administration, coaches and teachers, have had some accomplishments. Further, there is more work to do within the four schools. If EPS is to continue or expand the Demonstration Schools Initiative, there are still important steps the district and schools must take to maintain the progress and momentum from this year and strengthen the initiative moving forward. The findings in this report have implications for EPS Demonstration Schools, the district as a whole, and districts nationwide as they develop structures, systems, and habits of interaction that make CCSS implementation standard practice among educators.

Introduction

In the winter of 2012, Erie Public Schools (EPS) implemented the Demonstration Schools Initiative—a program funded by the General Electric Foundation (GEF) *Developing Futures*TM in Education program that provided intensive support to four EPS schools (two elementary, one middle, and one high) implementing the Common Core State Standards (CCSS) in mathematics, English language arts (ELA), and science during the 2012-2013 school year. The GEF provided funds primarily for the following interventions for each school:

- » 1 full-time mathematics instructional coach in elementary and middle schools
- » 1 full-time literacy instructional coach in elementary schools¹
- » 1 full-time science instructional coach in elementary and middle schools
- » 1 full-time high school instructional coach in high school
- » Established time for teacher collaboration during the school day

Concurrently during the 2012-2013 school year, EPS also continued their implementation of another GEF-supported initiative—the Coaching Initiative—using a cadre of instructional coaches in mathematics, science, and ELA for the other schools in the district.

In both the Coaching and Demonstration School Initiatives, instructional coaches are key agents of change. Their function is to target and customize the support needed at the building, grade,

1 One school did not receive a literacy coach for the SY 2012-2013.

and teacher levels to shift teachers' understanding and practice to align to the CCSS. For the Demonstration Schools Initiative, coaches also focused much of their time trying to develop professional learning communities (PLCs) within their schools.

This report summarizes findings from the evaluation of the Coaching and Demonstration Schools Initiatives in EPS conducted by the Consortium for Policy Research in Education (CPRE) during the inaugural year of the Demonstration Schools Initiative (SY 2012-2013). Findings are based on multiple surveys conducted over the course of the year. The research design and methods used in the evaluation are explained in detail below, followed by key findings and recommendations for future implementation.

Research Design

The success of both the Coaching and Demonstration Schools Initiatives focused on the work done by coaches and teachers to strengthen instructional practices and increase knowledge and understanding of the CCSS. Therefore, the evaluation of EPS is designed to answer two overarching questions:

1. Did teachers in the Demonstration Schools gain more knowledge of the CCSS as a result of their participation in the GEF-supported initiative?
2. What were the impacts of the initiative for the teachers in the GEF-supported Demonstration Schools compared to the rest of the district?
3. How did teachers perceive their respective coaches throughout the district?

To address these questions, CPRE conducted a series of surveys with teachers and coaches in the district.

Sample

In the fall of 2012, the district chose a total of four EPS schools to be Demonstration Schools for the district. There were two elementary schools, one middle school, and one high school. CPRE researchers administered web-based pre-surveys to all 143 faculty members in the Demonstration Schools from November 2012 through January 2013. Of staff members, 119 completed the pre-survey for an 83% response rate.

Table 1. CCSS Survey Participants

Population	Survey	<i>n</i>	Completion <i>n</i>	Response Rate
Demonstration Schools	Pre-survey	143	119	83%
	Post-survey	169	114	67%
Comparison Schools	Post-survey	291	197	68%

In May of 2013, all teachers in the Demonstration Schools and a group of comparison teachers in the district received a post-survey. Of the 169 Demonstration School teachers who received the post-survey, 114 completed the survey for a 67% response rate. The comparison teachers had a 68% response rate for the post-survey. (For the response rates for surveys, see Table 1.)

The teachers in the comparison group came from a stratified sample of teachers throughout the district who were not teaching in a Demonstration School. Teachers were categorized based on grade levels taught (i.e., elementary, middle, high), and subject(s) taught (e.g., mathematics, ELA, social studies, all subjects, etc.) CPRE researchers then randomly selected teachers from each category, basing the number on the corresponding category of teachers in the Demonstration Schools. (See Table 2 for comparison groups)

Table 2. CCSS Survey Comparison Groups

Comparison groups	<i>n</i> Demonstration Schools pre-survey	<i>n</i> Demonstration Schools post-survey	<i>n</i> Comparison Schools post-survey
Elementary	31	39	78
Middle	48	44	51
High	40	31	68
Total	119	114	197

Survey

Both the pre- and post-surveys asked respondents about beliefs about the CCSS, the amount of professional development (PD) focused on the CCSS, teachers' preparation to implement the CCSS, CCSS-aligned practices and perceptions of coaching support.

The pre-survey for the Demonstration School teachers had seven CCSS content knowledge questions in ELA and three in mathematics. In the spring, all three groups (Demonstration School teachers, comparison teachers, and coaches) received a post-survey that asked teachers eight CCSS content questions in ELA and seven in mathematics. The content knowledge questions included an array of easy, moderate, and hard close-ended questions about details of the standards appropriate for each teacher's grade level. An example of a grade-level appropriate ELA question was: *Approximately what proportion of student reading at your grade level should be informational text?* An example of a grade-appropriate mathematics question was: *Which of the standards below should be a major focus of instructional time?*

The survey also included a section of factual questions about both mathematics and ELA, which were used to assess teachers' knowledge of the CCSS. The final section of the post-survey for both Demonstration and comparison teachers included questions that asked teachers about their perceptions and experiences working with their respective coaches.

Open-Ended Questions

The survey concluded with a set of three open-ended questions for Demonstration School teachers and all coaches. Of those surveyed, 84% of respondents offered substantive comments. The distribution of teachers who responded, and those who offered any substantive comments, seems balanced across schools (school A= 28%, school B= 32%, school C=12%, school D= 28%).

The questions provided to teachers were:

- » Please describe any benefits you may have experienced as a teacher in a GEF Demonstration School this year.
- » Please describe any challenges you may have experienced as a teacher in a GEF Demonstration School this year.
- » Is there something you'd like for us to know regarding your experience with the Demonstration Schools Initiative, coaches/high school facilitators, or Common Core Standards?

The questions provided to the coaches were:

- » Please describe any benefits you may have experienced as a K-8 coach/high school facilitator this year.
- » Please describe any challenges you may have experienced as a K-8 coach/high school facilitator this year.
- » Is there something you'd like for us to know regarding your experience as a K-8 coach/high school facilitator, or with the Common Core Standards?

Researchers treated the data from the open-ended questions as qualitative data. Researchers coded the responses, attaching specific themes to corresponding sections. This process allowed researchers to retrieve data on specific topics from across groups or subgroups as needed. The data was then arranged in several themes that will be explored further in the findings.

Limitations of this Evaluation

While this report is based upon in-depth surveys conducted over the course of the year, CPRE researchers note that there are several limitations to this evaluation. The first limitation is that all data were self-reported. The opinions and perceptions of participants influence their behaviors, as well as give us insight into their particular experience of the Coaching and Demonstration Schools Initiatives, thus the data are still valid and useful. However, lack of other qualitative data did not allow us to triangulate the data for comparison and validation purposes.

It is also important to note that due to the small sample size of teachers in the Demonstration Schools, as well as the comparison teachers, CPRE was unable to make a determination for some of the constructs. For example, regarding experience with high school facilitators, the number of teachers who responded were so few that an interpretation of the data may not actually reflect the experience of the majority of teacher experience.

Findings

This section presents findings from the analyses of data collected from surveys and open-ended responses during the evaluation of the first implementation year of the GEF Demonstration Schools Initiative in EPS (SY 2012-2013). Findings are organized by the following categories:

- » Professional development
- » Preparation to implement CCSS
- » ELA and Mathematics classroom practices
- » CCSS teacher knowledge
- » Perceptions of coaching
- » Other factors

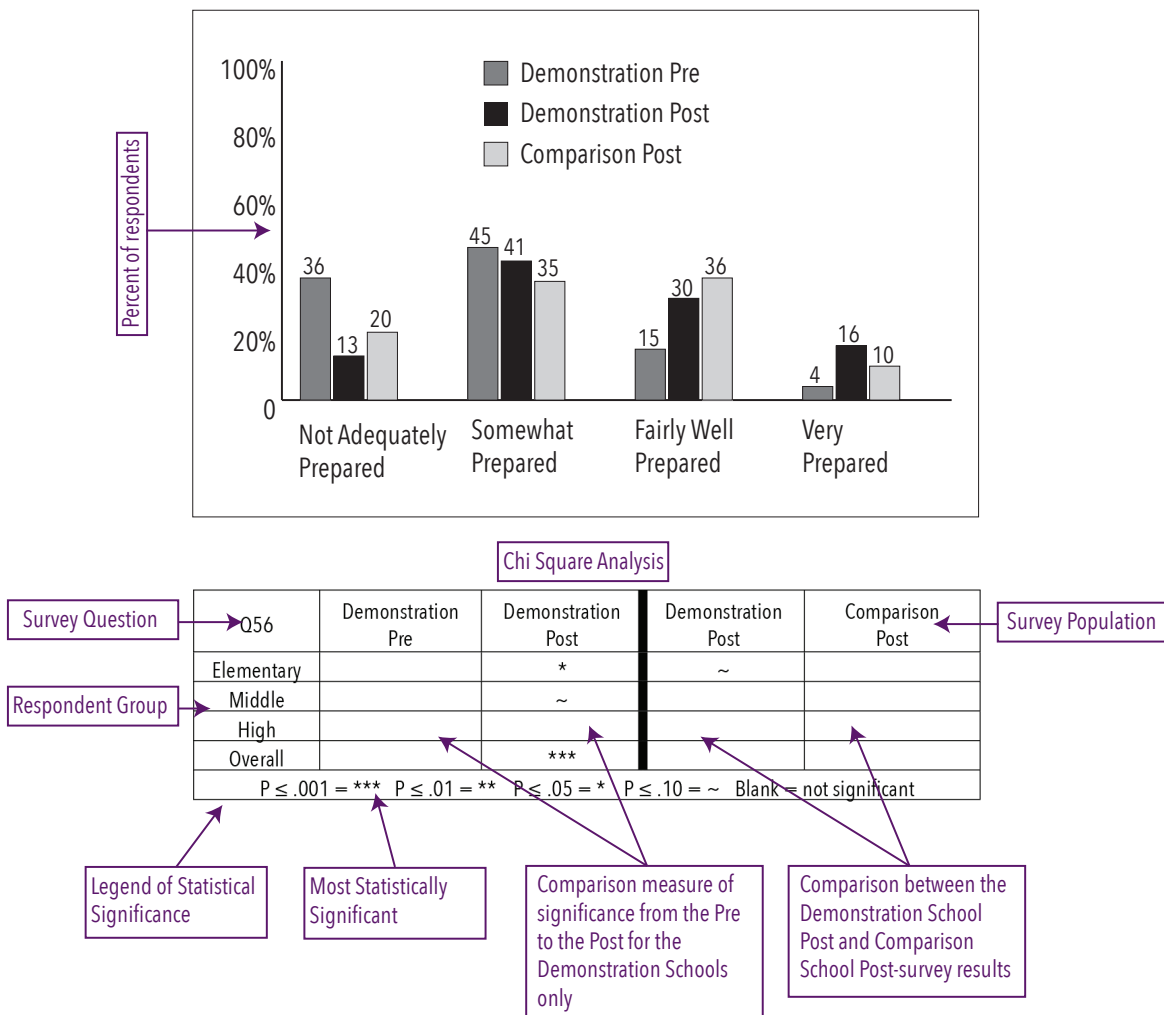
An Explanation of Graphs and Tables

The graphs presented in this report show the response rates for selected survey items. Each graph shows the percentage of teachers responding to the survey question expressed in the title of the graph. Typically, graphs present the response rates for pre-and post-survey questions for the Demonstration School teachers and response rates for post-survey Demonstration School teachers as compared to post-survey responses from comparison school teachers.

Researchers conducted further statistical analysis of response rates by comparison groups such as elementary, middle, and high school, for both the Demonstration and comparison teachers. These findings are presented in the tables below each graph. Each table presents the Chi-Square analyses that were calculated from the survey data using SPSS Statistics. Chi-square analysis measures the difference between the observed counts and the counts that would be expected if there were no relationship between categorical variables. The relation between these variables and their statistical significance is noted in the tables below each graph. If there was no statistical significance found for a survey item, only the frequency graph of the survey item is presented with a notation of no significance. Diagram A identifies the key features of the graphs and tables presented in this report.

Figure 1. Diagram A: Explanation of Table and Charts

Note: Figure title contains survey question.



Professional Development

A predominant focus for the Demonstration Schools Initiative is the dissemination and implementation of the CCSS to teachers and their instruction. This section examines the PD Demonstration School teachers received over the course of the school year (SY 2012-2013).

Regarding responses to the PD from the Demonstration Schools, overall the teacher responses about learning the CCSS were positive. Many teachers noted that they felt their knowledge of the CCSS had increased. Several respondents gave positive feedback about attending the New York City Institute and conferences on the CCSS. One teacher noted:

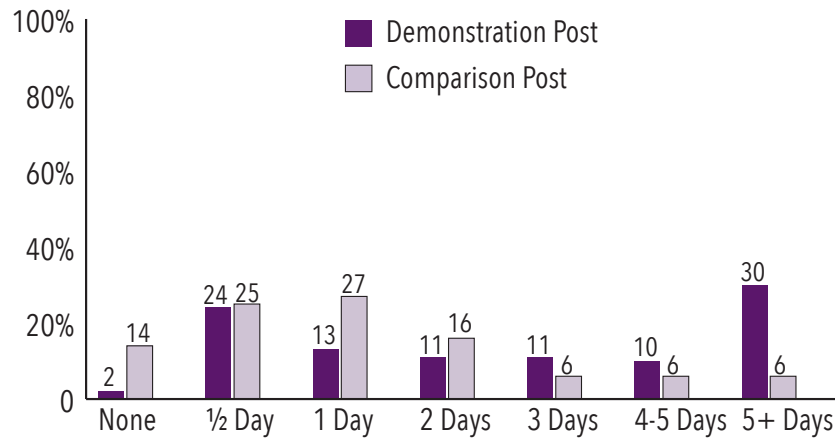
Being in a Demonstration School has allowed me the opportunity to attend conferences about the Common Core Standards. This enabled me to become familiar with the shifts in education and to understand how these shifts can be implemented to better instruct the students.

Many teachers reported that they wanted to learn more about the CCSS; more specifically to learn how to apply the CCSS to their classroom instruction. One teacher noted, “[The] introduction to Common Core Standards and discussing what they look like has been helpful, but I feel that I need more training and practical application of exactly ‘what’ that would like in each classroom and subject.”

Some teachers also wanted to know how the CCSS related to English language learner (ELL) students and students with special needs. One teacher reported, “I don’t know how the Common Core relates the ELL students and our curriculum.” Another teacher noted “I found it challenging to adapt Common Core to my special education classroom.” Special education teachers commented that they needed additional training on the Common Core to adapt the standards to their students’ learning needs. One special education teacher suggested having a special education collaborator or coach to effectively transition special education teachers into the Common Core.

Overall, there was a significant increase in PD in general CCSS, ELA, and mathematics, with the elementary schools accounting for much of the change. The graphs and tables in this section highlight the amount of PD teachers received and note significances between groups and subgroups when applicable.

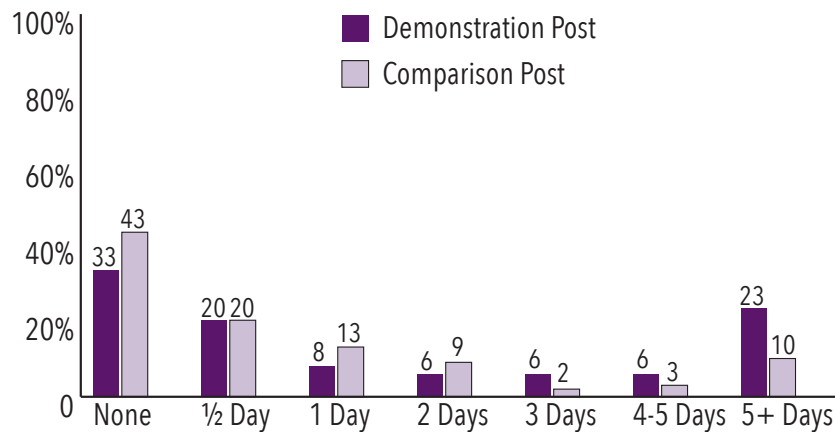
Figure 2. In the last 12 months, how much training have you participated in about the Common Core Standards? (General Common Core Standards)



Q31	Demonstration Post	Comparison Post
Elementary	***	
Middle	**	
High		
Overall	***	

P ≤ .001 = *** P ≤ .01 = ** P ≤ .05 = * P ≤ .10 = ~ Blank = not significant

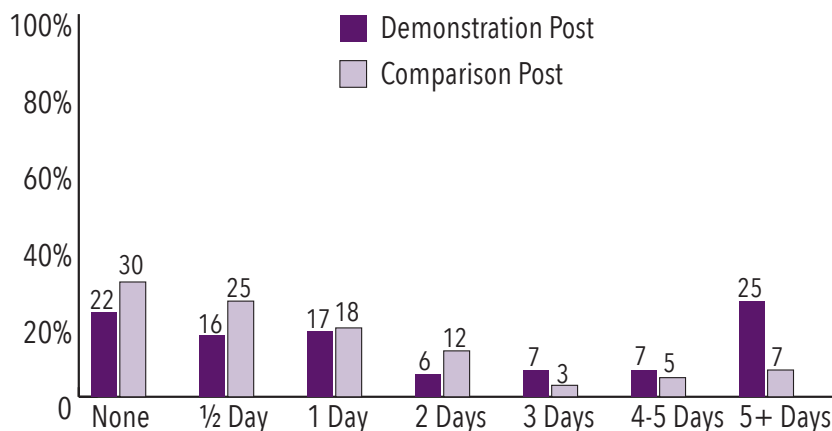
Figure 3. In the last 12 months, how much training have you participated in about the Common Core Standards? (Mathematics Focused)



Q32	Demonstration Post	Comparison Post
Elementary	***	
Middle		
High		
Overall	*	

P ≤ .001 = *** P ≤ .01 = ** P ≤ .05 = * P ≤ .10 = ~ Blank = not significant

Figure 4. In the last 12 months, how much training have you participated in about the Common Core Standards? (English/Language Arts Focused)



Q33	Demonstration Post	Comparison Post
Elementary	***	
Middle		
High		
Overall	***	

P ≤ .001 = *** P ≤ .01 = ** P ≤ .05 = * P ≤ .10 = ~ Blank = not significant

Preparation to Implement CCSS

One of the aspects of the Demonstration Schools Initiative is to help teachers prepare for implementing the CCSS in their own classrooms. This section examines the feelings of preparedness that teachers experienced regarding several aspects of implementing the CCSS.

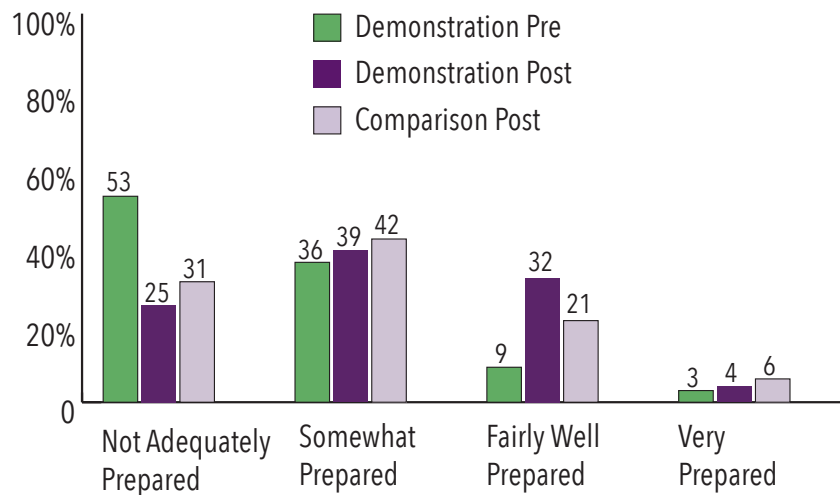
There were several themes in the open-ended responses that may have an influence on the feelings of preparedness of teachers in Demonstration Schools. As noted previously, though teachers felt they learned much in their PD sessions, they felt that they wanted more classroom-specific information.

Some teachers mentioned the PDs that focused on developing Learning Targets. The responses on those PDs were mixed among teachers. On the one hand, some teachers found them beneficial, "I liked the emphasis on Learning Targets," wrote one teacher. Another teacher explained why, "The implementation of Learning Targets was a wonderful addition to the classroom teaching aspect. It helped hold students accountable for what they needed to learn." On the other hand, some teachers felt that there was too much of a emphasis at the cost of other information, "Minimal education of the standards has taken place in the schools. The primary focus has been Learning Targets."

One of the biggest challenges teachers expressed in the open-ended responses was the limited amount of time Demonstration School teachers had to be able to learn and implement the CCSS. Numerous teachers spoke about how they felt overwhelmed about the amount of change that needed to take place in a short amount of time. One teacher wrote, "I feel we were pushed way too much and way too fast!! ... I was not able to fully understand one subject before I was pushed into another subject." And another teacher echoed that response, "Too many things are expected to fit into our day, to the point that it sometimes seems there's no time to do our actual jobs."

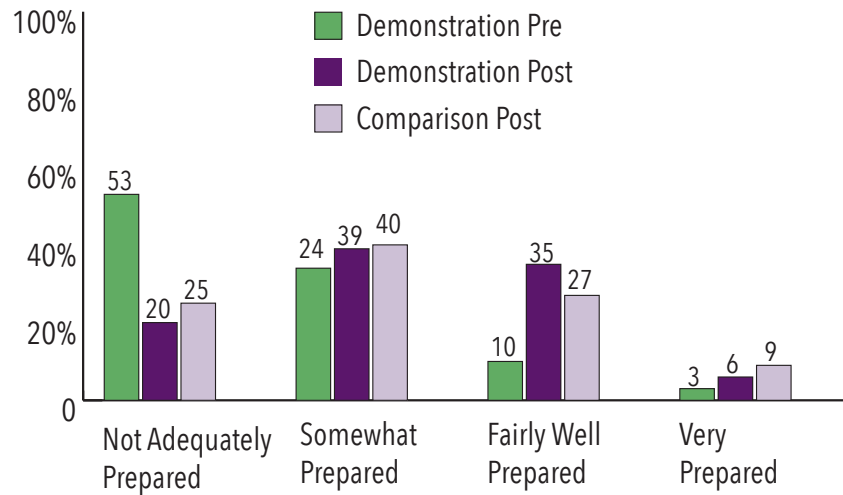
In general, the data indicate that when there was a significant difference, Demonstration School teachers felt more prepared in the spring than they did in the winter, when CPRE conducted the first survey. Regarding feelings of preparedness between Demonstration School teachers and comparison teachers, the data was mixed. In overall preparedness, when there was significant difference, Demonstration School teachers indicated that they felt more prepared. However, within the subject-specific questions of preparedness, the results varied by group and within subgroups. The graphs and tables in this section highlight the feelings of preparedness and note significances between groups and subgroups when applicable.

Figure 5. Preparation to organize a Common Core Standards-based classroom



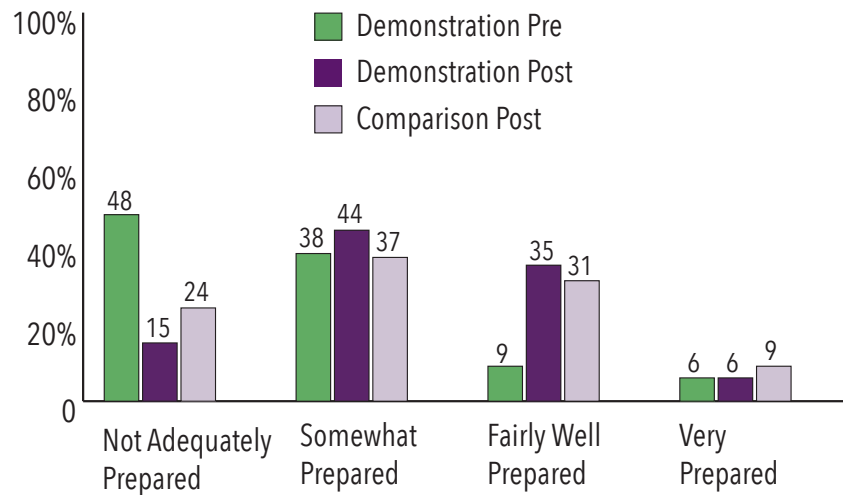
Q52	Demonstration Pre	Demonstration Post	Demonstration Post	Comparison Post
Elementary		~	~	
Middle		*		
High				
Overall		***		
P ≤ .001 = *** P ≤ .01 = ** P ≤ .05 = * P ≤ .10 = ~ Blank = not significant				

Figure 6. Preparation to select materials to help students meet Common Core Standards



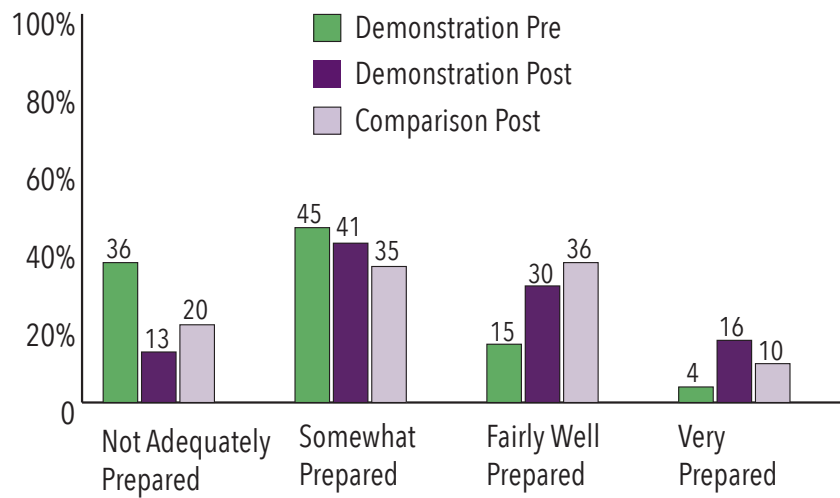
Q53	Demonstration Pre	Demonstration Post	Demonstration Post	Comparison Post
Elementary		***		
Middle		**		
High				
Overall		***		
P ≤ .001 = *** P ≤ .01 = ** P ≤ .05 = * P ≤ .10 = ~ Blank = not significant				

Figure 7. Preparation to analyze student work in relation to the Common Core Standards



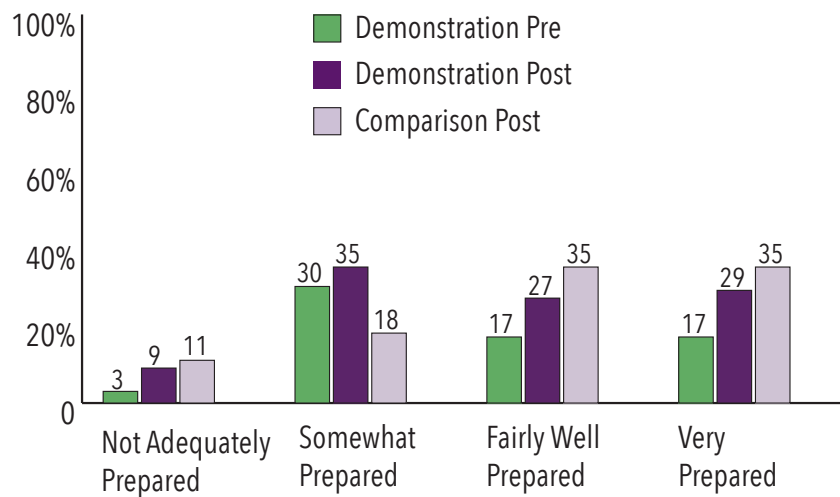
Q55	Demonstration Pre	Demonstration Post	Demonstration Post	Comparison Post
Elementary		***		
Middle		***	*	
High				
Overall		***		
P ≤ .001 = *** P ≤ .01 = ** P ≤ .05 = * P ≤ .10 = ~ Blank = not significant				

Figure 8. Preparation to use the Common Core Standards to plan my lessons



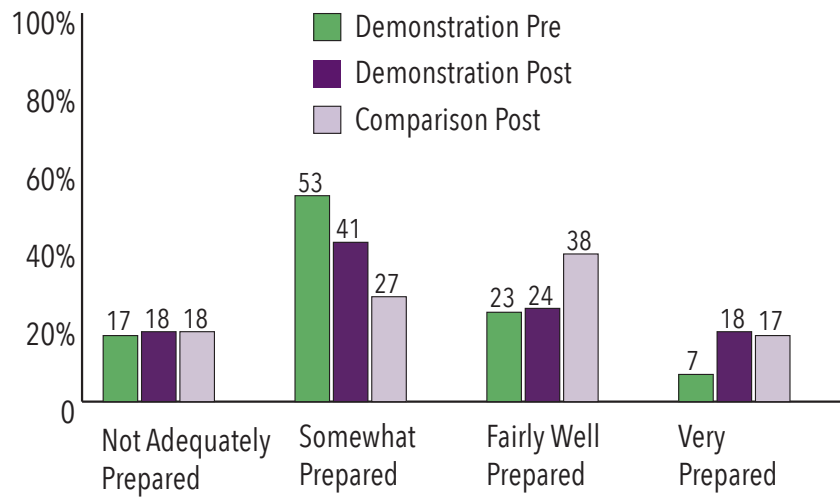
Q56	Demonstration Pre	Demonstration Post	Demonstration Post	Comparison Post
Elementary		*	~	
Middle		~		
High				
Overall		***		
P ≤ .001 = *** P ≤ .01 = ** P ≤ .05 = * P ≤ .10 = ~ Blank = not significant				

Figure 9. Preparation to help your English/Language Arts students: Use text as evidence.



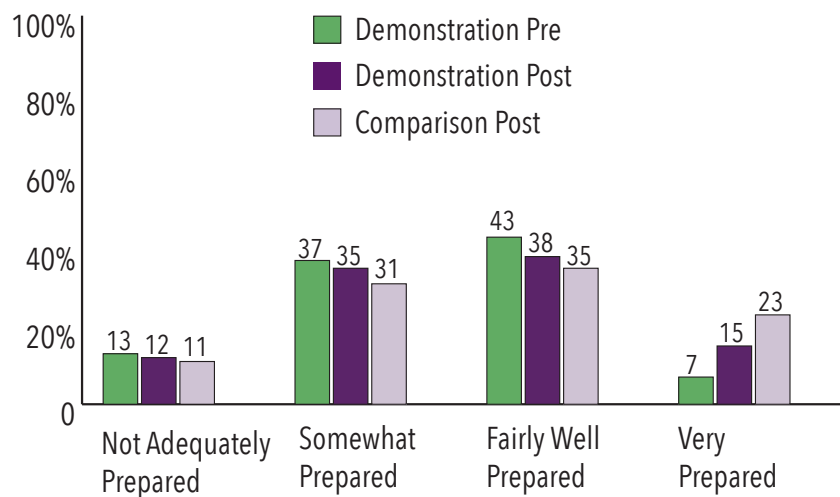
*No statistically significant difference was found between overall or with any grade level.

Figure 10. Preparation to help your English/Language Arts students: Evaluate claims in a text.



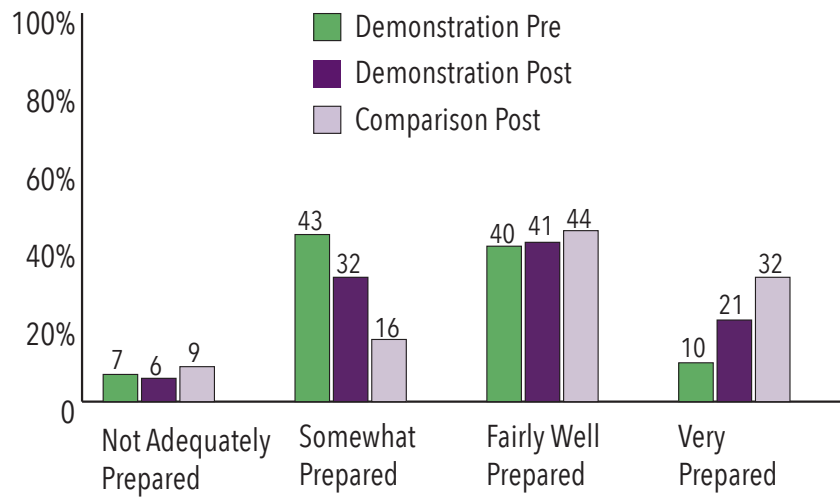
Q103	Demonstration Pre	Demonstration Post	Demonstration Post	Comparison Post
Elementary				
Middle		~	~	
High				
Overall				
P ≤ .001 = *** P ≤ .01 = ** P ≤ .05 = * P ≤ .10 = ~ Blank = not significant				

Figure 11. Preparation to help your English/Language Arts students: Read historical or science based informational text.



*No statistically significant difference was found between overall or with any grade level.

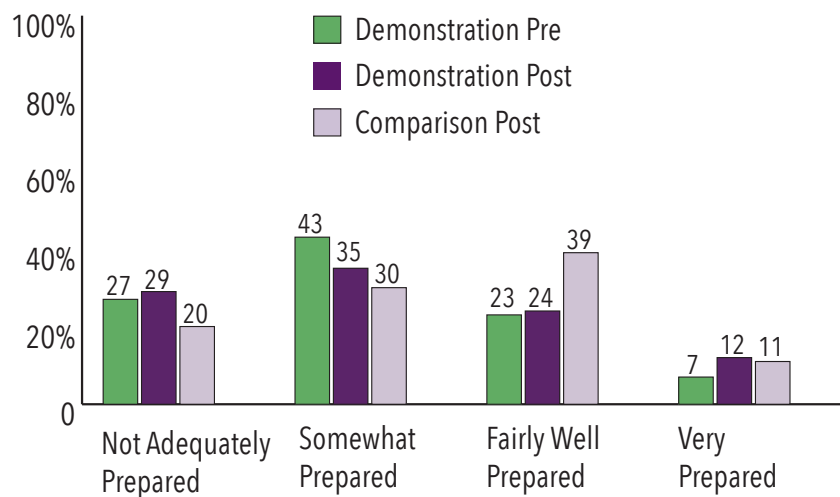
Figure 12. Preparation to help your English/Language Arts students: Use academic vocabulary.



Q105	Demonstration Pre	Demonstration Post	Demonstration Post	Comparison Post
Elementary				
Middle		*		
High				
Overall				

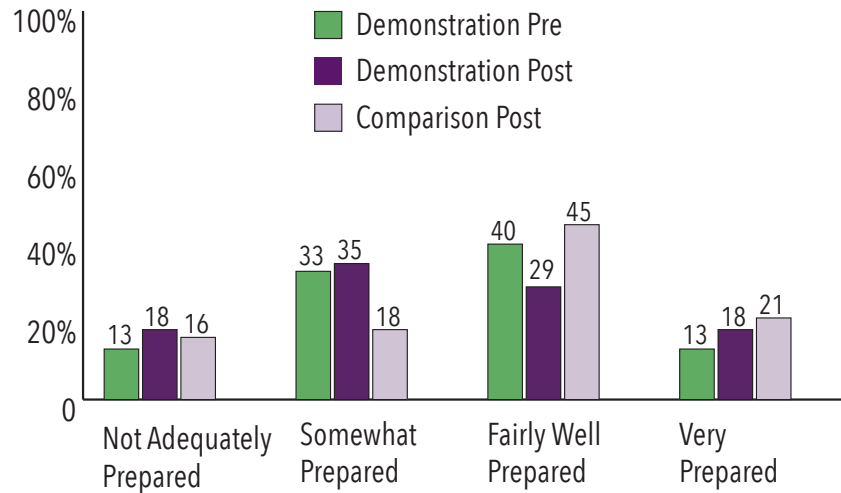
$P \leq .001 = ***$ $P \leq .01 = **$ $P \leq .05 = *$ $P \leq .10 = \sim$ Blank = not significant

Figure 13. Preparation to help your English/Language Arts students: Critique their peers' arguments and papers.



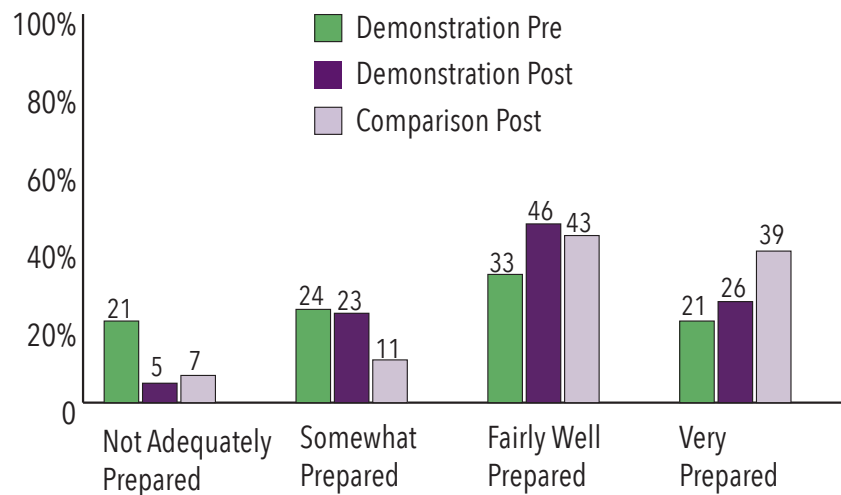
*No statistically significant difference was found between overall or with any grade level.

Figure 14. Preparation to help your English/Language Arts students: Interpret words and phrases as they are used in text.



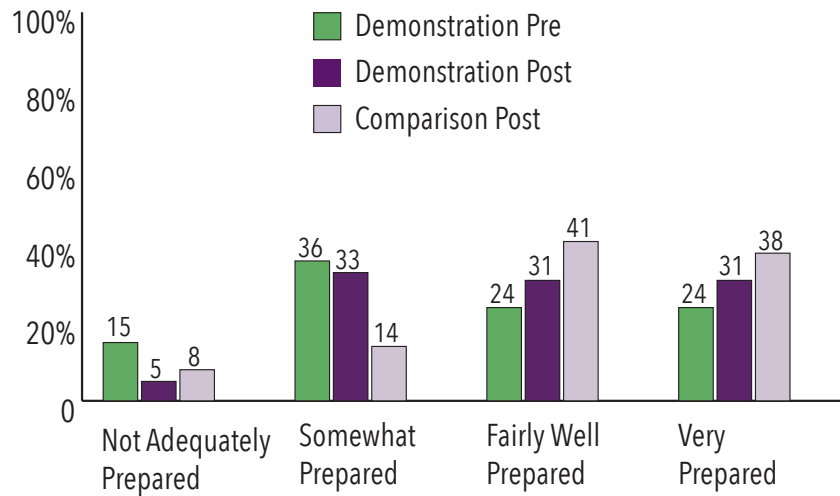
*No statistically significant difference was found between overall or with any grade level.

Figure 15. Preparation to help your math students: Understand what mathematical problems are asking of them and develop strategies for solving them.



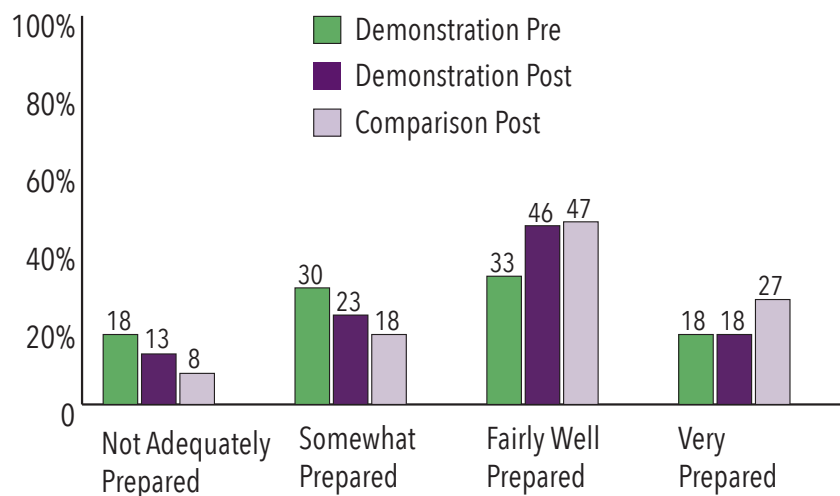
*No statistically significant difference was found between overall or with any grade level.

Figure 16. Preparation to help your mathematics students: Learn to represent and express a problem or scenario in mathematical terms.



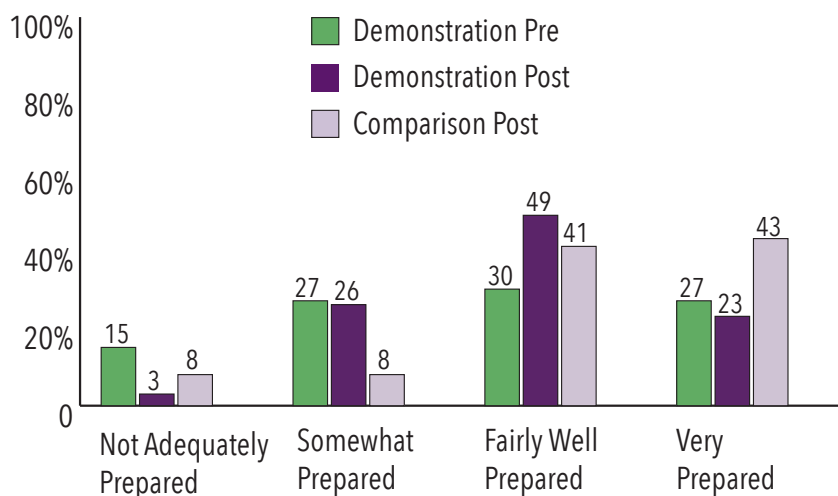
Q179	Demonstration Pre	Demonstration Post	Demonstration Post	Comparison
Elementary				~
Middle				
High				
Overall				
P ≤ .001 = *** P ≤ .01 = ** P ≤ .05 = * P ≤ .10 = ~ Blank = not significant				

Figure 17. Preparation to help your math students: Question or critique other students' reasoning when necessary.



*No statistically significant difference was found between overall or with any grade level.

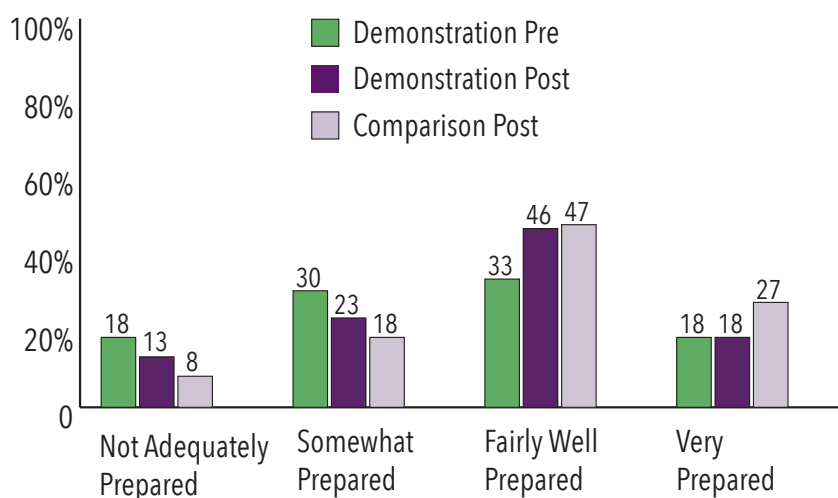
Figure 18. Preparation to help your math students: Logically explain their reasons and processes for solving problems.



Q180	Demonstration Pre	Demonstration Post	Demonstration Post	Comparison
Elementary				
Middle				
High				
Overall			*	

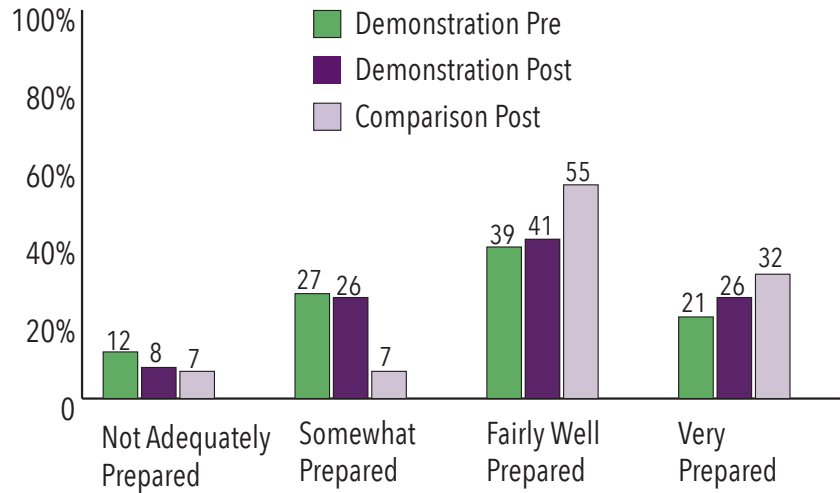
P ≤ .001 = *** P ≤ .01 = ** P ≤ .05 = * P ≤ .10 = ~ Blank = not significant

Figure 19. Preparation to help your math students: Question or critique other students' reasoning when necessary.



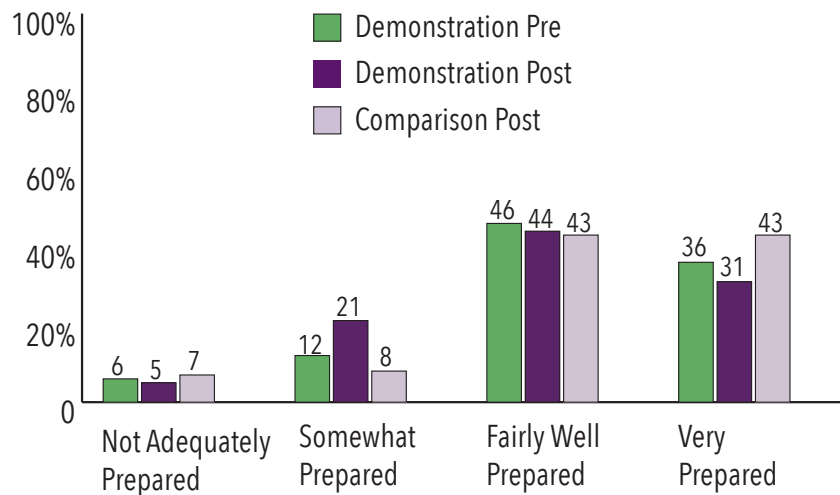
*No statistically significant difference was found between overall or with any grade level.

Figure 20. Preparation to help your math students: Use mathematics to model real-world problems or situations.



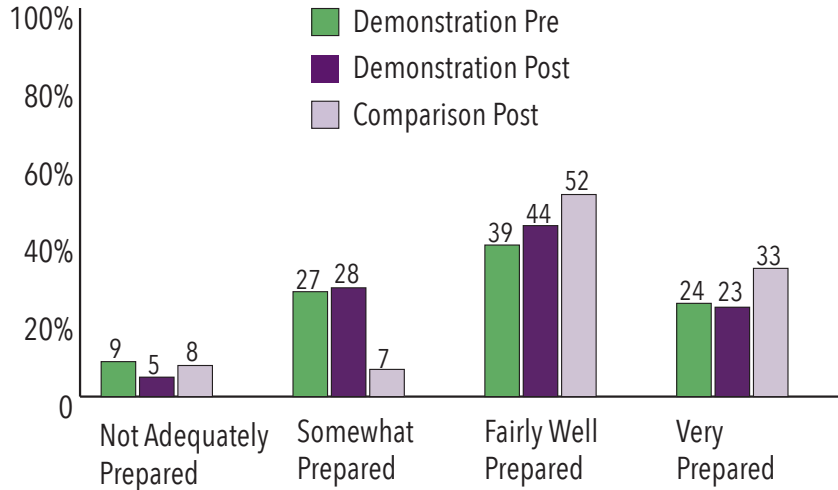
Q182	Demonstration Pre	Demonstration Post	Demonstration Post	Comparison
Elementary				*
Middle				
High				
Overall				*
P ≤ .001 = *** P ≤ .01 = ** P ≤ .05 = * P ≤ .10 = ~ Blank = not significant				

Figure 21. Preparation to help your math students: Consider and use tools (like rulers, calculators, software, etc.) strategically to solve mathematical problems.



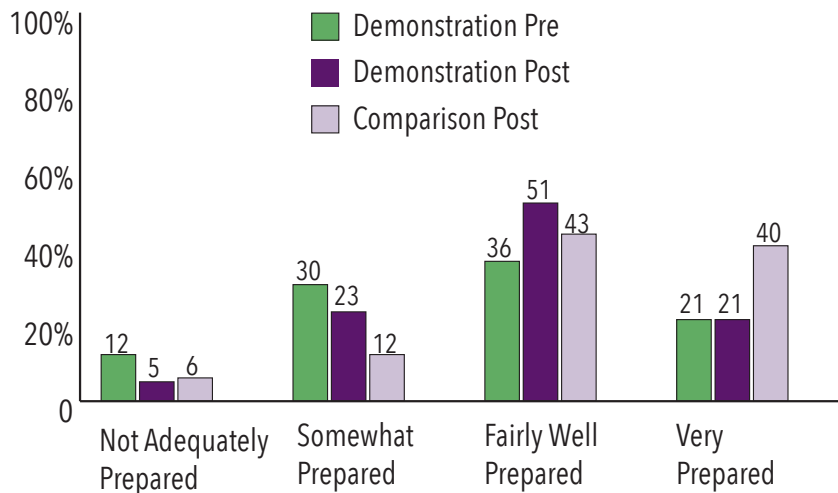
*No statistically significant difference was found between overall or with any grade level.

Figure 22. Preparation to help your math students: Show and explain their work precisely.



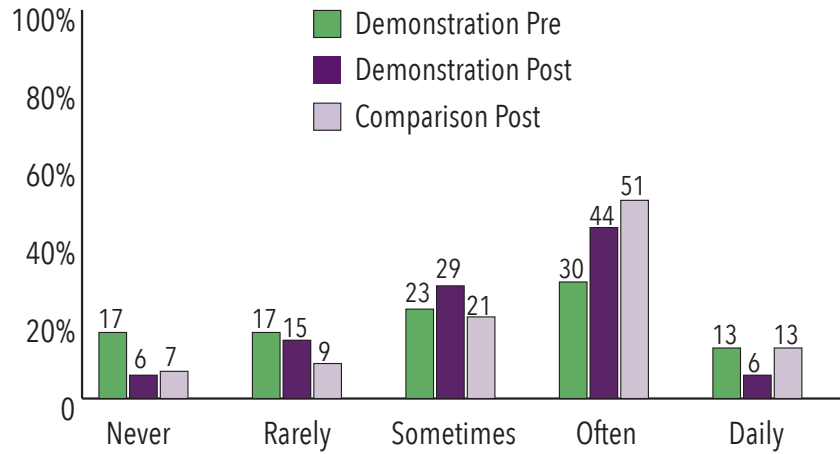
Q184	Demonstration Pre	Demonstration Post	Demonstration Post	Comparison
Elementary				**
Middle				
High				
Overall				*
P ≤ .001 = *** P ≤ .01 = ** P ≤ .05 = * P ≤ .10 = ~ Blank = not significant				

Figure 23. Preparation to help your math students: Identify mathematical patterns and use them to develop problem-solving strategies.



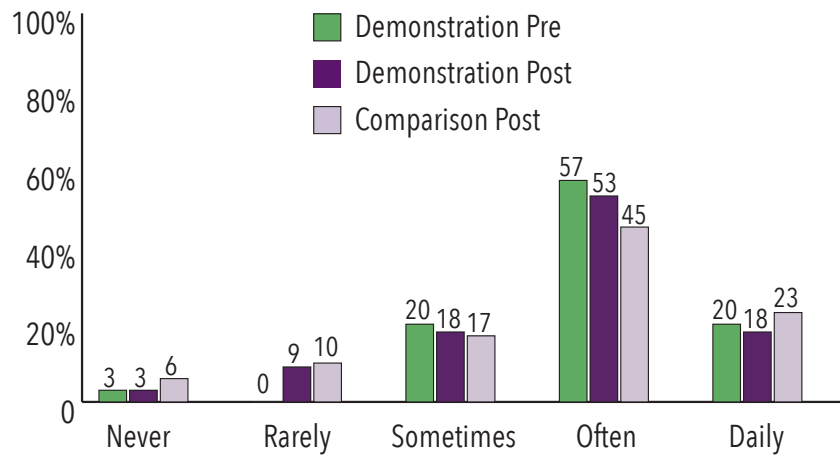
Q185	Demonstration Pre	Demonstration Post	Demonstration Post	Comparison
Elementary				
Middle				*
High				
Overall				
P ≤ .001 = *** P ≤ .01 = ** P ≤ .05 = * P ≤ .10 = ~ Blank = not significant				

Figure 24. Frequency of ELA teaching practice: Giving more time and space for a close reading of the text



*No statistically significant difference was found between overall or with any grade level.

Figure 25. Frequency of ELA teaching practice: Using fictional text as part of the English/Language Arts curriculum



*No statistically significant difference was found between overall or with any grade level.

ELA and Mathematics Teaching Practices

One of the goals of helping teachers to learn the standards and feel prepared to implement the standards is the actual use of the CCSS teaching practices. The following section examines teacher change in instructional changes specific to ELA and mathematics.

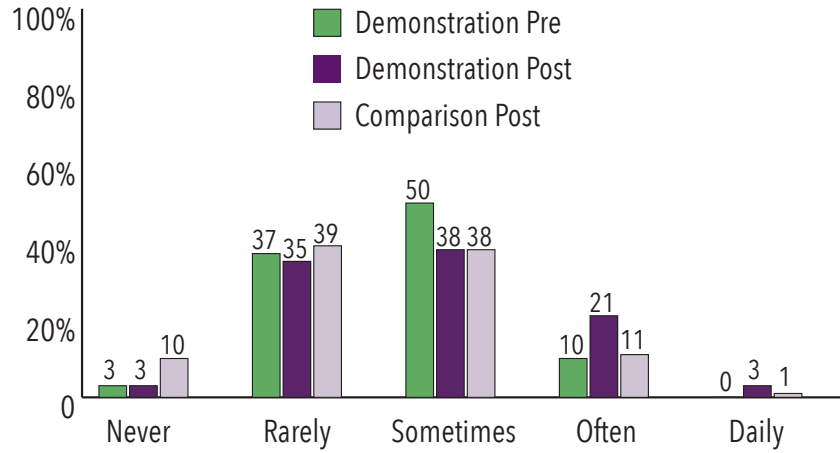
The response data reveals that the Demonstration School teachers made a concerted effort to understand the CCSS and apply the standards to their teaching. Teachers frequently commented on the changes that they had made to their practice from working in a Demonstration School. Most of the responses were positive, even when teachers found the work to be challenging. A teacher wrote, "I have gained experience with gathering, analyzing, and using data to drive my instruction to help close the gaps. I have become a more student-centered teacher. My teaching has become much more intentional."

However, respondents also shared challenges they experienced incorporating the CCSS into their practice. Some mentioned the difficulty of implementing CCSS with special education students, while another teacher noted that, "I found it challenging to implement these practices with class sizes over 30. I felt like I need to provide more crowd control many days than actual instruction." One teacher noted that curriculum changes also made implementation difficult and summed up the overall experience:

I struggle with applying "common core" to my every day lessons in class. I look at what I am doing and think, "How can I make this 'more' Common Core?" I don't necessarily think a change in teaching style is always the answer. Also, the curriculum changes happening WHILE we are teaching were a huge struggle. I expect next year to be much more organized for better implementation.

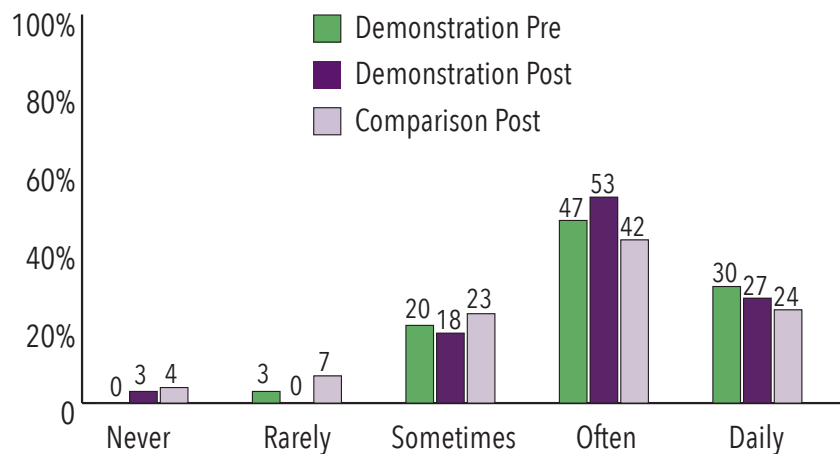
Regarding implementation of CCSS instructional practices the data was mixed. In many of the survey items, Demonstration School teachers noted that they often include the ELA and mathematics instructional practices in their teaching. However, in terms of comparing the Demonstration School teachers pre- and post-results, there were few significant differences, and when comparing two groups of teachers, the results varied by item. The graphs and tables in this section highlight the feelings of preparedness and note significances between groups and subgroups when applicable.

Figure 26. Frequency of ELA teaching practice: Having students write opinion essays



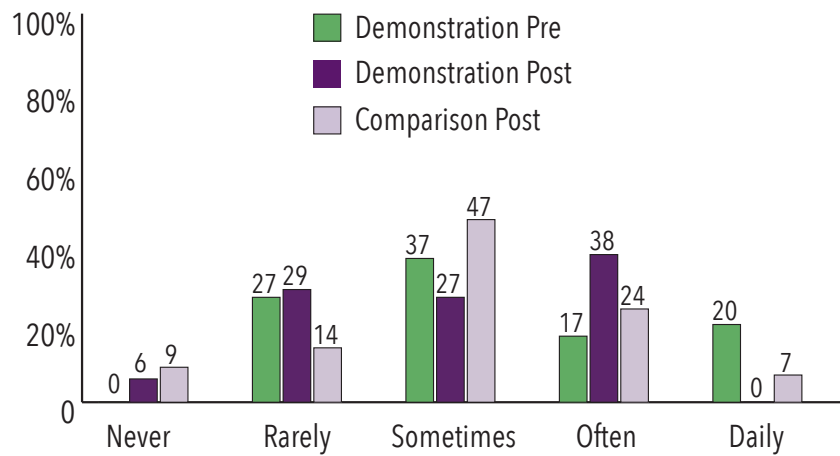
Q94	Demonstration Pre	Demonstration Post	Demonstration Post	Comparison
Elementary				~
Middle				
High				
Overall				~
P ≤ .001 = *** P ≤ .01 = ** P ≤ .05 = * P ≤ .10 = ~ Blank = not significant				

Figure 27. Frequency of ELA teaching practice: Focusing on specialized vocabulary



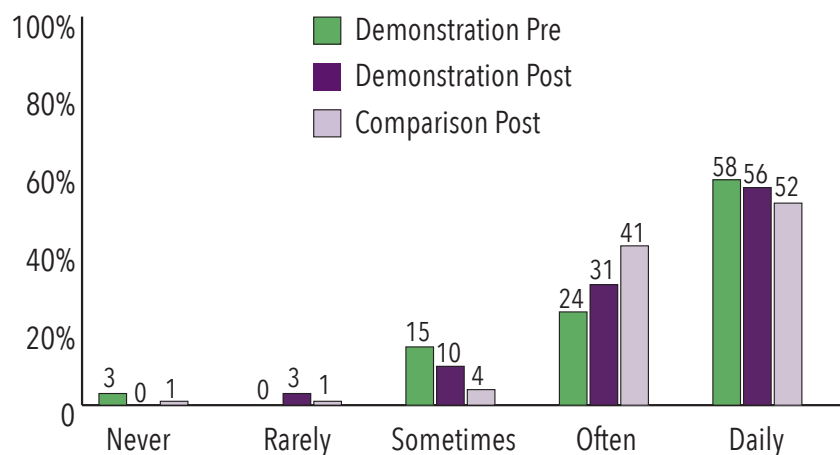
*No statistically significant difference was found between overall or with any grade level.

Figure 28. Frequency of ELA teaching practice: Assigning creative writing tasks



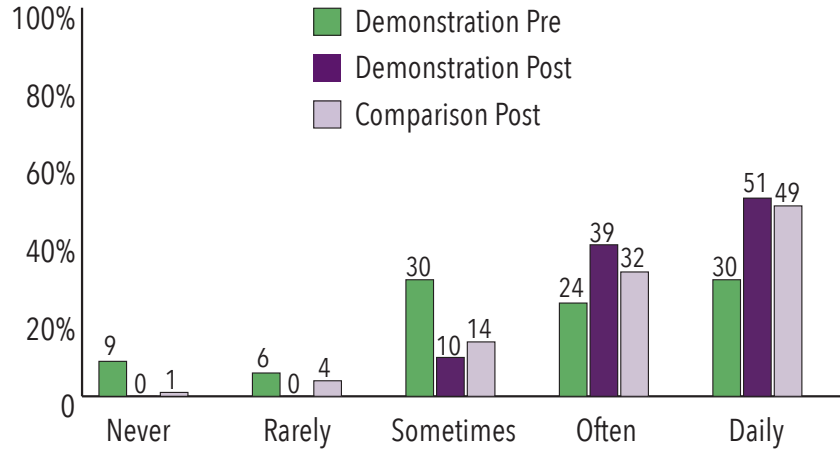
Q98	Demonstration Pre	Demonstration Post	Demonstration Post	Comparison
Elementary		~		*
Middle				
High				
Overall		*		~
P ≤ .001 = *** P ≤ .01 = ** P ≤ .05 = * P ≤ .10 = ~ Blank = not significant				

Figure 29. Frequency of mathematics teaching practice: Teaching lessons that encourage students to use multiple strategies to solve mathematics problems



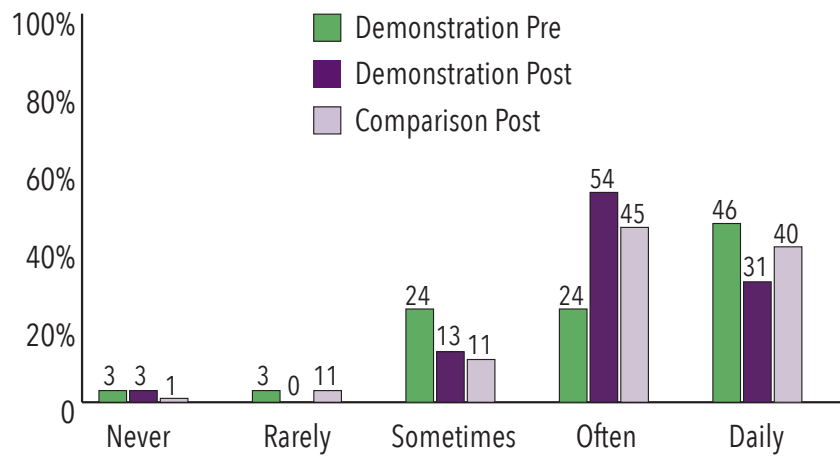
*No statistically significant difference was found between overall or with any grade level.

Figure 30. Frequency of mathematics teaching practice: Using repeated practice to improve students' computational skills



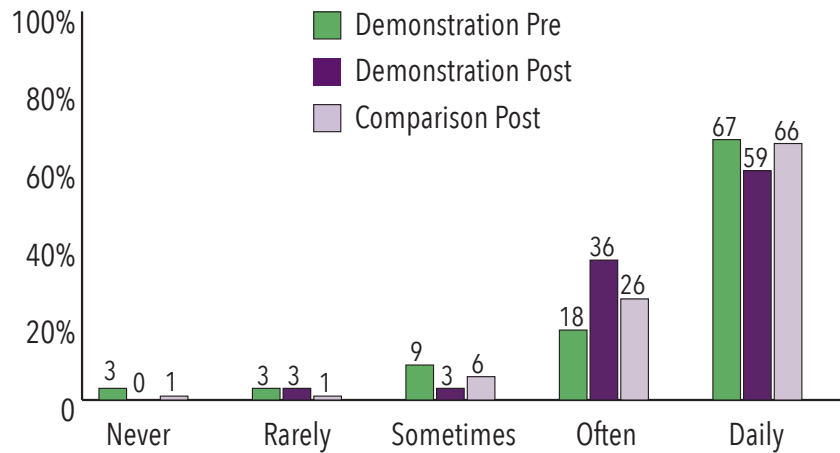
Q170	Demonstration Pre	Demonstration Post	Demonstration Post	Comparison
Elementary			*	
Middle				
High				
Overall			*	
P ≤ .001 = *** P ≤ .01 = ** P ≤ .05 = * P ≤ .10 = ~ Blank = not significant				

Figure 31. Frequency of mathematics teaching practice: Teaching lessons that ask students to solve challenging mathematics problem



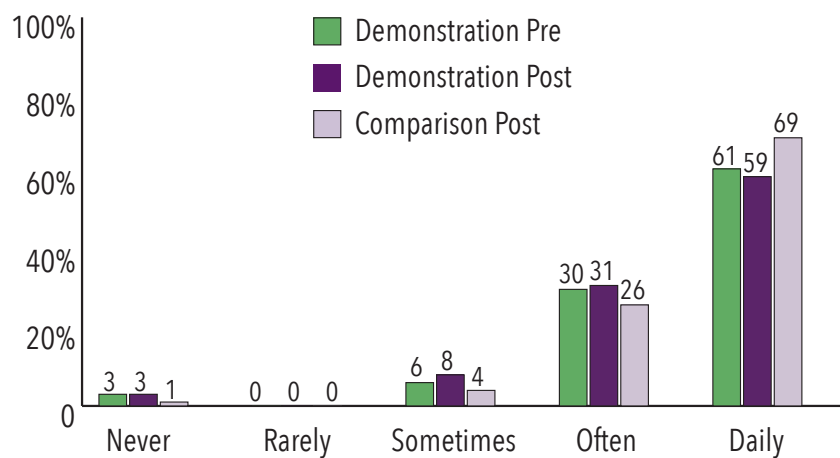
*No statistically significant difference was found between overall or with any grade level.

Figure 32. Frequency of mathematics teaching practice: Explaining their thinking when solving mathematics problems



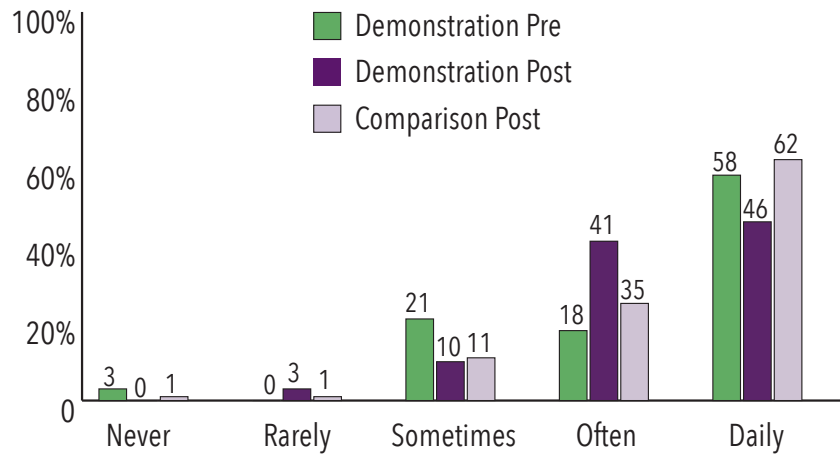
Q175	Demonstration Pre	Demonstration Post	Demonstration Post	Comparison
Elementary				
Middle		~		
High				
Overall				
P ≤ .001 = *** P ≤ .01 = ** P ≤ .05 = * P ≤ .10 = ~ Blank = not significant				

Figure 33. Frequency of mathematics teaching practice: Including all students in the class in lessons aimed to develop conceptual understanding of mathematics



*No statistically significant difference was found between overall or with any grade level.

Figure 34. Frequency of mathematics teaching practice: Engaging students in a discussion about the strategies they used to solve mathematics problems



Q177	Demonstration Pre	Demonstration Post	Demonstration Post	Comparison
Elementary				
Middle				
High		**		*
Overall				
P ≤ .001 = *** P ≤ .01 = ** P ≤ .05 = * P ≤ .10 = ~ Blank = not significant				

Impact on Teachers' CCSS Knowledge

Overall, CPRE found higher CCSS ELA knowledge among teachers in Demonstration Schools in relation to comparison school teachers. There were no significant differences in CCSS knowledge of Demonstration School teachers in the pre- and post-test, and no differences in CCSS knowledge between Demonstration School teachers and comparison teachers in mathematics.

Table 3. Mean performance on pre- and post-Common Core Knowledge Test of teachers in Demonstration Schools (with standard deviations in parentheses).

	Fall 2012		Spring 2013	
	ELA	Mathematics	ELA	Mathematics
Demonstration School Teachers	.28 (.19)	.26 (.32)	.31 (.16)	.39 (.34)

Table 3 shows the unadjusted means of the Demonstration School teachers on the pre- and post-survey. We can see that on both ELA and mathematics teachers, on average, performed higher on the post-survey than they did on the pre-survey. However, in both ELA ($t = -.643$, $df = .043$, $p = .523$) and mathematics ($t = -1.54$, $df = 63.63$, $p = .131$). There did not appear to be a significant difference between teachers' scores in the fall and in the spring. Thus, we conclude that in terms of ELA and mathematics, Demonstration School teachers did not show significant growth in CCSS knowledge between the pre- and post-survey.

Table 4. Mean performance on post-survey Common Core Knowledge Test of teachers in both Demonstration and comparison schools (with standard deviations in parentheses).

	Spring 2013	
	ELA	Mathematics
Teachers in Demonstration Schools	.31 (.16)	.67 (.18)
Teachers in Comparison Group	.20 (.14)	.61 (.22)

Table 4 shows the unadjusted means of the two groups on the post-survey. In ELA, teachers in the Demonstration Schools scored significantly higher than those teachers in the comparison group ($t = 3.66$, $df = 58.7$, $p = .001$). However, in terms of mathematics there did not appear to be a significant difference between teachers in the Demonstration Schools and the teachers in the comparison schools ($t = -1.52$, $df = 94.46$, $p = .131$). Thus, we conclude that in terms of ELA, Demonstration School teachers had more CCSS knowledge than teachers in the comparison group.

Perceptions of Coaching

Because coaching is a key lever in shaping teacher instructional practices, the quality of the professional relationship between coach and teacher can influence the success of the initiative. This section examines the time spent with coaches and how teachers in EPS perceived their coaching experience.

The graphs below note how often teachers had contact with their coaches in ELA and mathematics. There were not enough responses to be able to determine coaching contact with high school Facilitators or Science coaches.

Figure 35. Over the course of the year, how often did you typically work with your math coach? Do not include time spent in school-wide PD or team meetings.

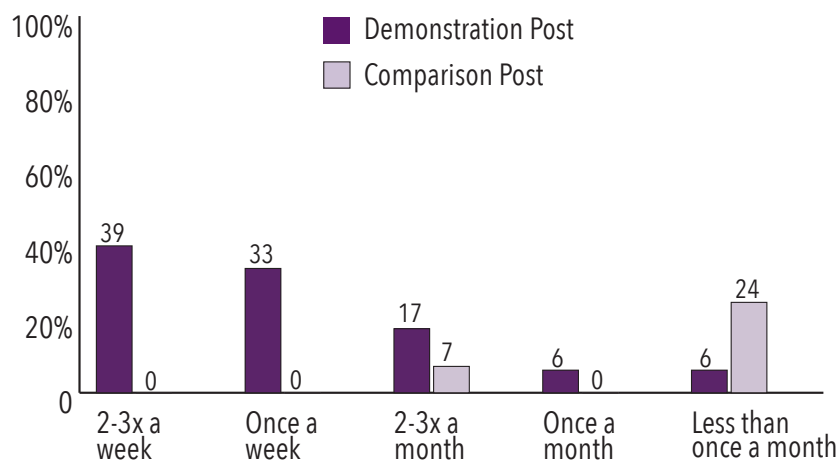
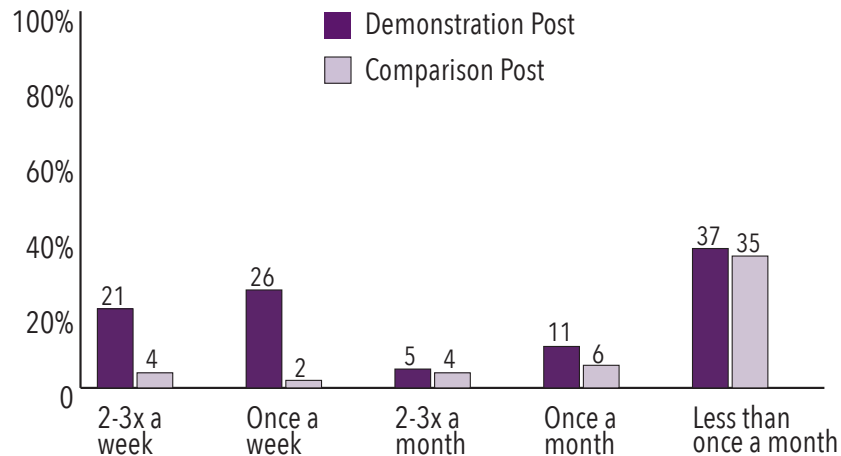


Figure 36. Over the course of the year, how often did you typically work with your ELA coach? Do not include time spent in school-wide PD or team meetings.



Respondents' perceptions of instructional coaches and facilitators in their schools were mixed. On the more positive end, teachers found their coaches to be knowledgeable and accessible to them. One Demonstration School teacher wrote that the "math coach has been present and available throughout much of the school year." Another noted that the extra support was appreciated: "It was great having someone who could give another perspective to my teachings and also supported my lessons. Having additional support to make me a more effective teacher was very welcomed."

Not every respondent noted the same positive experiences with their coaches. Many teachers noted that they had very little or no contact with their coaches. Others wrote that they found their respective coaches to be inaccessible:

We have also had access to an instructional coach who has assisted us in changing the way we teach. [The] only drawback was that this coach was out of the building and required meetings way too often and therefore opportunities for implementing a co-teaching model of having the coach come in to make observations was nearly impossible.

Other teachers were concerned that coaches were not familiar with the content knowledge for their specific grade level, "I felt that the coach was not at all familiar with middle-level content, thus producing materials and support that was not useful."

Mathematics Coaching

Of the teachers surveyed in the Demonstration Schools, almost 61% of the elementary/middle school teachers responded that they strongly agreed or somewhat agreed that *grade-level planning meetings with mathematics coaches were a good use of their time/valuable to me*. Of the teachers surveyed in the comparison schools, almost 50% of the elementary/middle school teachers responded that they somewhat agreed with the statement.

When responding to the survey question that asked teachers: *I have confidence in their math coach's ability to help the teachers surveyed improve their instruction*, a majority (68%) of the elementary and middle school teachers in the Demonstration and comparison schools responded they strongly agreed or somewhat agreed that they had confidence in their math coach's ability to help them improve instruction.

Of the teachers surveyed in the Demonstration Schools, nearly 75% of the elementary/middle school teachers responded that they strongly agreed or somewhat agreed that *math coaching activities (e.g., modeling, co-teaching, etc.) are appropriate for their needs*.

Among the teachers surveyed in the Demonstration Schools the figure was higher than the comparison group, with 72% of the elementary/middle school teachers strongly agreeing or somewhat agreeing that *grade-level planning meetings with math coaches were a good use their time/valuable to me*. Of the teachers surveyed in the comparison schools, a majority of the elementary/middle school teachers (59%) somewhat agreed with the statement.

ELA Coaching

Of the teachers surveyed in the Demonstration Schools, almost 61% of the elementary/middle school teachers responded that they strongly agreed or somewhat agreed that *grade-level planning meetings with ELA coaches were a good use of their time/valuable to me*. Of the teachers surveyed in the comparison schools, almost 50% of the elementary/middle school teachers responded that they somewhat agreed.

When presented with the survey statement, *I have confidence in the ELA coach's ability to help me improve my instruction*, 60% of the Demonstration School teachers strongly agreed or somewhat agreed, compared to 50% of the comparison teachers.

Of the teachers surveyed in the Demonstration Schools, exactly 65% of the elementary/middle school teachers responded that they strongly agreed or somewhat agreed that *ELA coaching activities (e.g., modeling, co-teaching, etc.) are appropriate for their needs*.

When responding to the survey question that asked teachers: *the ELA coach provides appropriate curriculum resources for them*, a majority (60%) of the elementary and middle school teachers in

both the Demonstration and comparison schools responded they strongly agreed or somewhat agreed that they had confidence in their ELA coach's ability to provide appropriate curriculum resources for them.

Other Factors Influencing Demonstration Schools

From the open-response data, several other themes emerged regarding teachers reactions and experiences towards implementing the CCSS in the Demonstration Schools. This section gives a brief overview of those themes.

The overall response to the Demonstration Schools Initiative was mixed. There were several positive responses; teachers saw that the CCSS had potential to influence student success, "This year has molded me into a better (more confident) teacher and molded my students into better, smarter learners!" Teachers were especially positive to the PLCs and collegiality among teachers. A teacher explained the benefit of being a Demonstration School:

There has been a lot more professional talk among teachers. We have made an effort to support one another through all the changes going on with the Common Core. Everyone tries to help one another out whenever possible.

There were also more critical responses that highlighted challenges in implementing the CCSS and also suggested ways the initiative could be improved. The challenges included a lack of directive and clarity regarding the Demonstration Schools, and time needed to process and implement new knowledge in the classroom.

Vision setting and clarity

One of the stronger themes emerging from the data is the need for more clarity regarding the overall vision and goals of the Demonstration Schools Initiative. The lack of clarity was experienced in several ways. Some teachers felt that the expectations the district had of teachers and the goals for the schools were unclear. One teacher wrote:

I would say that it's somewhat 'overwhelming' fleshing out what a Demonstration School should look like and where we are in the whole scheme of things...Once a clearly defined outline of where we need to be and where we are is defined, I believe the staff and students will come on board with all the changes.

Other teachers felt that the Demonstration School Initiative did not result in what was initially presented to them when they voted. One teacher wrote simply, “The Demonstration School did not work the way it was presented. At the meeting where we voted, we got told one thing and then it was switched to another.” For example, from the data it appears that teachers received promises of more technology or opportunities to earn extra income, and little was available.

Finally, from the data it appears that teachers may be receiving conflicting messages about the overall vision and goal for the Demonstration Schools and their roles. Several teachers noted that communication on all levels can be a challenge. One respondent reported, “I think there are great ideas out there, but when too many people outside of the school have decision-making power regarding what we do, sometimes our vision gets lost.”

Without clear goals and vision for the initiative, the implementation of the CCSS in the Demonstration Schools may be deterred. One respondent wrote, “I believe the greatest challenges have been effective communication, accountability, and inconsistency of all persons involved—from teachers to staff to administration.” From the data it appears that teachers may want more guidance and a strategic plan to give them a sense of direction for the initiative.

Lack of teacher input

Related to vision setting, some respondents suggested that leaders of the initiative should bring teachers into the planning and listen to their input. Respondents wanted to find ways to help improve implementation: “I would like to see the district form committees (vertical and horizontal) to decide on materials and timelines to provide a strong, comprehensive program to meet the needs of students and educators,” wrote one teacher. Having teacher input was not just limited to the district level, some teachers noted that they wanted to have more input at their school levels as well. The main reason teachers gave for wanting to give input is to bring their classroom experience of what works to planning and implementing of the CCSS.

Student response

Several respondents commented that implementing the CCSS this year was challenging due to the response of their students, especially among special education populations. Teachers noted that the current knowledge of students made it difficult to fully implement the standards in their classroom. A teacher explained:

We are just in the beginning stages but the real issue is the majority of our students don't have the basic [grade-level] skills and prior knowledge needed to complete the [grade-level] curriculum both from CMP or CC standards.

Teachers noted it was especially difficult trying to determine how to implement the CCSS with their special education students, “[There were] unrealistic expectations of included special education students.”

Other participants were encouraged by the positive impacts they had seen with their students. Teachers wrote, “The trainings with [coach] were great and really changed the way I was teaching. The writings that my students produced were amazing.” Another respondent reflected that this year was: “the best teaching experience for me. Students felt empowered and truly understood and mastered required skills. They felt a great sense of accomplishment.”

Professional Learning Communities (PLCs)

Overall, teachers had positive responses to their school level PLCs. Many respondents found the PLC time to be a beneficial aspect of the initiative. Some respondents expressed appreciation for the time to collaborate with colleagues. One teacher wrote:

Working in PLCs with my grade-level teacher was an awesome experience. We were able to discuss and come up with classroom ideas that worked for both of us. Since we were able to have meetings and time we were also able to co-plan.

Of the different types of PD afforded to the teachers, the PLCs were the most mentioned in the open-ended responses. When they were mentioned, they were almost always positive.

Resources

Some respondents commented about the lack of resources (material, technological, curricular, and human) accompanying the initiative. Not having the needed materials and support made implementation difficult. “Access of materials was somewhat limited due to needing access to other grade-level books for lessons and/or lack of follow through with materials to supplement a lesson [was a difficulty],” a teacher wrote. Technology was one of main resources that participants noted in their responses. Several respondents noted an inequity of resources among different schools.

Conclusion and Recommendations

CPRE's evaluation of the GEF Demonstration Schools Initiative in EPS sought to describe the progress of the initiative during its first year (SY 2012-2013), and the experiences of the implementation of the initiative. Extensive survey data provided insights into participants' understanding and perceptions of the CCSS, coaching, and the general implementation of the initiative.

Overall, the data presented in this report shows that the first year of the Demonstration Schools Initiative has been successful several ways (e.g., growth in PD, and growth in feelings of preparedness to implement CCSS). EPS Demonstration Schools, with their respective administration, coaches, and teachers, have had some accomplishments. Further, there is more work to do within the four schools. If EPS is to continue or expand the Demonstration Schools Initiative, there are still important steps the district and schools must take to maintain the progress and momentum from this year and strengthen the initiative moving forward. The findings in this report have implications for EPS Demonstration Schools, the district as a whole, and districts nationwide as they develop structures, systems, and habits of interaction that make CCSS implementation standard practice among educators.

The concluding section of this report summarizes the progress EPS made this last year. It includes a set of recommendations that address some key challenges identified in the report. It also focuses on ways in which EPS can strengthen the overall initiative.

Progress

This evaluation found that there was a significant increase in PD in CCSS (general, ELA, and mathematics), and that much of the PD was well received. There is also evidence that as the year progressed, Demonstration School teachers felt more prepared to implement both the CCSS and respective ELA or mathematics instructional practices related to the CCSS. Finally, by the end of the year, the teachers at the Demonstration Schools exhibited more knowledge of the CCSS than those teachers in the comparison group.

The Demonstration School and district coaches were an important factor in implementing the CCSS. CPRE researchers found that, overall, a majority of teachers had confidence in their mathematics and ELA coaches, and felt that the respective coaching activities were appropriate for their needs. Many teachers found the teacher-team meetings and PLCs to be a valuable component of their PD as well.

Recommendations

Based on an analysis of survey comments, there are some issues initiative leaders should take into account as they move forward with implementation. While these findings may not be entirely representative of all EPS teachers' experiences, these findings were pervasive enough to warrant consideration to build a more effective program for all teachers.

1. **Ensure that all stakeholders, especially teachers, are informed with a clear vision, expectations, and plan for implementation.** Further, adhere to that plan, and follow-through on commitments to increase and maintain teacher buy-in.
 - a. Substantively include teachers and principals in the planning and vision-setting process. Responses in this survey indicate that many teachers see the initiative as a "top-down" imposition.
 - b. Establishing and clearly communicating concrete plans may minimize teachers' feelings of being overwhelmed at the amount of change they are being requested to make.
 - c. Prioritize pieces of change. Decide which areas of change are most important to the initiative in EPS and communicate and push on those.
2. **Build on the positive momentum of PLCs.** Respondents appreciated the time to plan collaboratively with their colleagues. However, school and initiative leaders should be aware that some teachers feel they are being pulled out of the classroom too frequently for meetings. Teachers should feel that the value of the meetings they participate in outweighs the decrease in their instruction time and negative student behaviors upon return.
3. **Continue to attend to teachers' knowledge-building.** Comments about the specific content that teachers were taught were quite mixed. Taking an inventory of teacher knowledge may be a good place to begin with teachers. Some felt that their familiarity with the CCSS increased greatly. Others indicated that they learned very little about the CCSS. It was clear the Learning Targets were a focus area this year. Some teachers saw the value in this, others seemed confused about the focus. It is unclear from this data, but it may be worth exploring the degree to which coaching and PD is "starting with the standards".
 - a. Additionally, as CPRE have found in other districts, even when teachers feel confident in their knowledge of the CCSS, they may struggle with classroom implementation especially with students of different abilities and needs. Modeling and co-teaching by coaches are effective ways to develop these skills in teachers.

4. **Continue developing coaches professionally.** While researchers cannot draw solid conclusions on the actual quality of coaching from this data, there are some key dimensions of coaching mentioned in the data to consider when assessing the effectiveness of coaching initiative-wide.
 - a. Accessibility is key. This is a challenge in larger schools where coaches have more teachers to serve. To the extent possible, keeping coaches visible and accessible may increase teachers' perceptions of the level of support. Accessibility includes alternative means of communication, like email.
 - b. Coaches need continuous PD as well. Teachers need to feel confident that their coaches are knowledgeable and skilled. Giving coaches time to troubleshoot, share knowledge and strategies, and support one another can be valuable to their development as CCSS experts and coaches. If coaches cannot provide the support that a teacher or school needs, they should be responsive to those needs and find the support or answers for them elsewhere.
 - c. Being sensitive and adaptive to teachers' needs can increase teachers' satisfaction with coaching. This entails good listening skills and guiding teachers through the problem-solving process.
5. **Provide timely, quality feedback to teachers about their performance.** They need this information to continue to learn and change their practice. Respondents who received feedback, valued it highly. Further, those individuals providing the feedback must be aware of the perception among teachers that they have not observed "typical" or enough instruction in their classroom to make an accurate assessment. If manpower is an issue, consider enlisting others to observe and give feedback, such as fellow teachers or administrators.
 - a. CPRE has developed a Common Core Observation Guide (CCOG), a multi-dimensional observation rubric aligned to the Common Core. Dimensions in the rubric reflect tangible classroom practices based on instructional shift associated with the CCSS. The purpose of the CCOG is to help coaches provide teachers with individualized feedback and a professional growth plan based on observation of classroom teaching practices.
6. **Be sensitive to the challenges and successes teachers encounter with their students when implementing the CCSS.** Teachers may be willing to adjust their instructional practice, but find the student response to be such an obstacle that they may be less likely to persist. Likewise, when there is a positive student response teachers may be more willing to continue.
 - a. Address the unique needs of special education and ELL teachers who are attempting to implement the CCSS.

- b. Work with teachers to develop or find strategies that will give them success with their students. Validate incremental progress even if it does not fully meet expectations.
7. **Finally, material resources that align with the goals of the reform not only help teachers implement, but increase their buy-in.** Technological resources (hardware, software programs, etc.) may energize teachers and encourage them to innovate instructionally. Such resources may also increase students' engagement, which would further motivate teachers.

In sum, perceptions of the initiative will improve if teachers are clear on the definition of a Demonstration School and what is expected of them, if they feel that the demands of the change are supported with quality personnel (coaches, observers) and the instructional materials they need to carry out the changes, and that initiative leaders are attuned to their experience of change with their students.

As this report makes clear, in many ways the GEF Demonstration Schools Initiative in EPS has shown promise in its methods for CCSS implementation. EPS–district leaders, administrators, coaches, and teachers—deserve recognition for their efforts implementing this new reform in such a short period of time. Being the first year, there is still much work that needs to be done to move the district further along in implementing the CCSS, and to scale-up the Demonstration School model. Though the amount of work can be daunting, if teachers and coaches have the support of district leadership and administration, there is potential for continued success.

