

# Data & Accountability Department

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## Implementation Insights

### WCPSS DISTRICT IMPROVEMENT IMPLEMENTATION 2010-11

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**Need Addressed:** The Wake County Public School System (WCPSS) first failed to meet district standards for No Child Left Behind (NCLB) Adequate Yearly Progress (AYP) in 2005-06 in reading. WCPSS then met the standards in reading but not in mathematics. In 2010-11 targets in both subject areas were missed. Strategies were selected to improve achievement of low performing student subgroups, so the district could exit District Improvement status.

**SIOP® (began 2007-08):** Sheltered Instruction Observation Protocol (SIOP®) was selected by the District Improvement Advisory Committee as the leading instructional approach designed to bring WPCSS out of District Improvement status. The initiative emphasizes vocabulary development and strategies aligned with instructional best practices.

**Secondary Mathematics (began 2009-10):** To enhance mathematics instruction and achievement, teachers of subgroups of students who performed below grade level and did not meet AYP targets in courses leading up to and including Algebra 1, needed additional support in the form of professional development. All Algebra I teachers and mathematics teachers in grades 6-8 were to become familiar with appropriate processes and effective practices in mathematics so they could apply them to better support students.

**Secondary Literacy (began 2009-10):** To create a systematic structure for student intervention assistance and an in-depth understanding about literacy among secondary teachers, literacy training of teachers was needed. The training was to increase the likelihood that students who were three or more grade levels behind in reading and were more likely to perform below grade level and not graduate would receive adequate instructional support.

**Other (began 2010-11):** Other District Improvement initiatives funded in 2010-11 and implementation starting in 2011-12, provide support for teachers in their differentiation efforts; in elementary mathematics instruction; in deep curriculum alignment training to curriculum writers, and in collaborative teaming to support teachers of students with disabilities.

#### Major Findings

SIOP® training numbers and classroom implementation levels exceeded the targets. Teachers reported wide use of SIOP® lessons. Coaching reached 84% of all teachers in targeted schools, with 85% planned, and was reported to be “very” to “mostly helpful” by about half of teachers and “somewhat helpful” by about one third of teachers in targeted schools.

Training within the secondary mathematics initiative was provided to 184 teachers, just short of the goal of 200 teachers. About half of teachers applied the strategies and activities they learned from the training in their classrooms. Teachers reported increased student engagement and improved understanding of mathematics concepts.

The 2010-11 literacy training reached 134 teachers. Overall, 89% to 96% of teachers gave positive ratings to questions about the training. All teachers implemented the training strategies in their classrooms. Teachers reported increased student engagement, improved classroom performance, and enhanced reading and reading comprehension skills; 72% of teachers who received coaching support felt coaching was “very” to “mostly” helpful.

#### Recommendations

A series of recommendations are made in the implementation report:

- Set strategic goals and systematically monitor implementation; target schools or teachers with high numbers of AYP groups of students in need of support;
- Be intentional in coaching efforts (for newer initiatives) and structure their coaching models based on the SIOP® experience;
- Build ownership and commitment at the school level;
- Coordinate new and existing efforts to optimize effectiveness.



WAKE COUNTY  
PUBLIC SCHOOL SYSTEM

	<b>TABLE OF CONTENTS</b>
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BACKGROUND.....	3
No Child Left Behind (NCLB) .....	3
District Improvement Efforts .....	4
SIOP <sup>®</sup> .....	8
Implementation .....	8
Summary .....	21
SECONDARY MATHEMATICS INITIATIVE .....	24
Goals.....	24
Strategies .....	24
Implementation .....	25
Summary .....	29
SECONDARY LITERACY INITIATIVE .....	30
Goals .....	30
Evaluation Plan .....	30
Implementation .....	31
Summary .....	43
CONCLUSIONS .....	45
RECOMMENDATIONS.....	46
REFERENCES .....	48
APPENDIX A, SIOP <sup>®</sup>	
A1 SIOP <sup>®</sup> Logic Models .....	49
A2 SIOP <sup>®</sup> Training .....	50
A3 SIOP <sup>®</sup> Surveys .....	54
A4 SIOP <sup>®</sup> Lessons .....	67
A5 SIOP <sup>®</sup> Observations .....	69
APPENDIX B, SECONDARY MATHEMATICS INITIATIVE	
B1 Secondary Mathematics Initiative Logic Model .....	74
B2 Secondary Mathematics Initiative e-Schools Training Feedback.....	76
B3 Algebra I Concepts Training Follow-Up Survey .....	78
APPENDIX C, SECONDARY LITERACY INITIATIVE	
C1 Secondary Literacy Initiative Logic Model .....	85
C2 Secondary Literacy Initiative Evaluation Methods .....	87
C3 Secondary Literacy Initiative Survey .....	88
APPENDIX D, LEA AYP Results .....	93



## BACKGROUND

This report focuses on the implementation of several components of District Improvement efforts which were fully implemented in the 2010-11 school year. A separate report addresses impact of the SIOP<sup>®</sup> component which has been in place long enough to expect a measurable impact on student achievement. (This report will soon be posted at: <http://www.wcpss.net/evaluation-research/reports/index-date.html> )

### NO CHILD LEFT BEHIND (NCLB)

In 2010-11, Wake County Public School System (WCPSS) was in District Improvement because the district did not meet AYP goals. Adequate Yearly Progress (AYP) is a series of performance targets that a school district and specific subgroups within their schools must achieve each year to meet the requirements of No Child Left Behind (NCLB). AYP for a school district is determined by compiling the proficiency data for each student group and for all students in the district as a whole in both reading and mathematics, and by calculating the attendance and graduation rates at the district level. All groups count which represent 1% of the tested population or a minimum of 40 students. Targets increase incrementally until 2013-14 when all students are expected to show proficiency in reading and mathematics. A district enters Title I District Improvement when it misses any one target in the same subject in each of three grade spans for two years in a row. To exit Title I District Improvement in North Carolina, a district must meet all target goals for each subgroup in one grade span for two consecutive years in the subject area that placed the district in improvement (also see: [www.ncpublicschools.org/nclb/district](http://www.ncpublicschools.org/nclb/district) ).

In 2010-11, higher AYP proficiency targets for meeting annual measurable objectives were set for grades 3-8 in reading and mathematics, and grade 10 reading/language arts and mathematics. The new targets were 71.6% in reading and 88.6% in mathematics in grades 3-8, and 69.3% in reading/language arts and 84.2% in mathematics in grade 10. This was a considerable increase from 2009-10. For example, grade 3-8 reading targets went up from 43.2% to 71.6%, and mathematics targets in the same grades increased from 77.2% to 88.6%.

**Table 1**  
**AYP Reading and Mathematics Targets for Grades 3-8 and 10**

Year	Grades 3-8 (%)		Grades 10 (%)	
	Reading	Mathematics	Reading/Language Arts	Mathematics
2007-08	43.2	77.2	38.5	68.4
2008-09	43.2	77.2	38.5	68.4
2009-10	43.2	77.2	38.5	68.4
2010-11	<b>71.6</b>	<b>88.6</b>	<b>69.3</b>	<b>84.2</b>
2011-12	71.6	88.6	69.3	84.2
2012-13	71.6	88.6	69.3	84.2
2013-14	100	100	100	100

The examination of WCPSS AYP results for 2009-10 and 2010-11 shows that, as a result of the increase, the district missed all of the new targets in both reading and mathematics at all grade levels, although not in all subgroups. These results also show a need for continued or increased support of both reading and mathematics at all grade levels. Table 2 illustrates the district’s AYP results for 2009-10 and 2010-11 and lists the NCLB subgroups of students that missed the targets by subject area and school level. For the full AYP history see Appendix D. The AYP student subgroups that are in the district’s focus and are in need of support are LEP students, Black students, students with disabilities, and economically disadvantaged students.

**Table 2**  
**WCPSS 2009-10 and 2010-11 AYP Status**

Year/Level				
2009-10	Reading	Mathematics	Implications for 2010-11	
High School	<b>Target: 38.5%</b> Met	<b>Target: 68.4%</b> Missed –Black, SWD	Exit Reading	Mathematics Enter Level 2
Grades 6-8	<b>Target: 43.2%</b> Met	<b>Target: 77.2%</b> Missed- Hispanic		
Grades 3-5	<b>Target: 43.2%</b> Met	<b>Target: 77.2%</b> Missed-Black, ED		
2010-11			Implications for 2011-12	
High School	<b>Target: 69.3%</b> Missed –Black, American Indian, ED, LEP,SWD	<b>Target: 84.2%</b> Missed – LEP,SWD	Reading Watch list	Mathematics (Corrective Level 3 Action)
Grades 6-8	<b>Target: 71.6%</b> Missed-Black, ED, LEP, SWD	<b>Target: 88.6%</b> Missed –All, American Indian, Multiracial, Black, ED, LEP, SWD		
Grades 3-5	<b>Target: 71.6%</b> Missed-Black, American Indian, ED	<b>Target: 88.6%</b> Missed –All, Black, American Indian, ED, LEP, SWD		

Note: ED – economically disadvantaged; LEP-Limited English Proficient, SWD- students with disabilities.

**DISTRICT IMPROVEMENT EFFORTS**

District Improvement implementation is supported through Title I funds (10% of the Title I budget). District Improvement funds can only be designated for professional development and cannot be used for any other instructional expenses such as purchasing resources for teachers, unless used for professional development, hiring school staff to work with students, etc. Thus, any strategies paid through Title I funds designed to bring the district out of improvement can only address teacher training. Within this limitation, several approaches have been adopted that focus on providing professional development to teachers who provide instruction in AYP subject areas and teaching student AYP groups that need the most instructional support.

One of the strategies that has been in place in WCPSS since 2007-08 is Sheltered Instruction Observation Protocol (SIOP®), a research-based approach aimed at strengthening students’ academic language and student involvement with the primary focus on limited English proficient (LEP) students. The approach is in close alignment with Marzano’s nationally recognized best

classroom practices (Marzano, Pickering, & Pollock, 2001). SIOP<sup>®</sup> was suggested as a leading instructional approach that could bring the WCPSS out of District Improvement, because the district was in Level 2 of District Improvement in reading, and SIOP<sup>®</sup> had the potential to help not only LEP students but all students who needed support, if fully implemented.

SIOP<sup>®</sup> started out as a K-12 intervention, but by 2009-10 focused on elementary and some middle school support. In 2009-10, after adopting SIOP<sup>®</sup>, two other approaches were added to District Improvement efforts to further strengthen support to the secondary level. While SIOP<sup>®</sup> remained the leading approach designed to bring WCPSS out of District Improvement at the elementary level, the two new District Improvement components added in 2009-10 supported the areas of secondary mathematics and secondary literacy. These approaches were designed to strengthen professional development of those teachers who teach secondary reading/language arts and mathematics, End of Course (EOC) assessment areas. By the end of 2008-09 the district met AYP in reading but failed to meet mathematics standards.

In 2010-11, the District Improvement effort expanded when a number of new approaches were funded and entered the planning phase. The new District Improvement strategies addressed differentiation, curriculum alignment, special education, and elementary mathematics. These new approaches aimed to support teachers working with special education students (AYP subgroup), with those who teach elementary mathematics (one of the District Improvement areas in need of improvement), and with all teachers in their use of differentiation strategies (to support all AYP subgroups).

New proposals were additionally funded through Title I funds to provide teacher professional development in 2010-11, and the staff started most of their teacher training in 2011-12. All the concerted efforts are expected to improve student EOG/EOC scores and bring the district out of District Improvement. Table 3 presents the targeted NCLB subgroups, school levels, and subject areas supported by the approaches. For a more detailed description of the approaches, see previous District Improvement implementation reports (Paeplow & Lynn, 2009; Bulgakov-Cooke, & Baenen, 2010; Bulgakov-Cooke, 2010).

**Table 3  
District Improvement Initiatives and their AYP Subgroup Targets  
by Subject and School Level**

District Improvement Initiatives Supporting Teachers of AYP Groups of Students	AYP Subgroups Needing Additional Support							
	Black		ED		SWD		LEP	
	Reading	Mathematics	Reading	Mathematics	Reading	Mathematics	Reading	Mathematics
<i>Elementary</i>								
SIOP® Training, Coaching, and SIOP® Lessons	X	X	X	X	X	X	X	X
Elementary Mathematics Coaching		X		X		X		X
Differentiation Training	X	X	X	X	X	X	X	X
Deep Curriculum Alignment	X	X	X	X	X	X	X	X
<i>Middle</i>								
Differentiation Training	X	X	X	X	X	X	X	X
SIOP® Training, Coaching, and SIOP® Lessons	X	X	X	X	X	X	X	X
Training for Special Education Teachers					X	X		
Secondary Literacy Training and Coaching	X		X		X		X	
Secondary Mathematics Teacher Training		X		X		X		X
Deep Curriculum Alignment	X	X	X	X	X	X	X	X
<i>High</i>								
Differentiation Training	X	X	X	X	X	X	X	X
Training for Special Education Teachers					X	X		
Secondary Literacy Training and Coaching	X		X		X		X	
Secondary Mathematics Teacher Training		X		X		X		X
Deep Curriculum Alignment	X	X	X	X	X	X	X	X

This report describes the 2010-11 implementation of the three approaches that were in place for at least two years: SIOP®, secondary literacy, and secondary mathematics. Each description outlines the goals for 2010-11, the actual implementation levels and offers a detailed discussion of implementation with graphs and tables, and accompanying appendices.

For the new components, only goals and strategies are shared, since full implementation will not occur until 2011-12. The Special Education Department proposed a new initiative which provides collaborative teaming training for pairs of teachers. A co-teaching environment is effective in teaching students with disabilities in general education classrooms. One hundred general and special education teachers working in collaborative teams will examine instructional practices taken from Mathematics Foundations and Literacy trainings to enhance the

achievement of students with disabilities (SWD) in their classrooms. The selection of schools for training is determined by AYP scores for students with disabilities.

Elementary mathematics' new coaching initiative includes hiring 32 mathematics coaches to be placed in elementary schools selected based on proficiency scores. Mathematics coaches will receive instructional coaching training through North Carolina State University (NCSU) and will develop coaching plans for every grade level with the goal to improve instructional practices at the school. The ultimate purpose of the coaching initiative is to improve student performance in mathematics at the elementary school level.

To better meet student needs, professional development of teachers in 39 self-selected schools will focus on the effective use of differentiation strategies. Several levels of training will be offered over a few years, with close to 40 schools participating in 2011-12 in the first year level one training. In addition to the differentiation training, in 2011-12 the Academics Department will offer deep curriculum alignment training to curriculum writers to ensure proper alignment between the learning standards/objectives and the tested curriculum at all grade levels.



## SIOP<sup>®</sup>

Sheltered Instruction Observation Protocol (SIOP<sup>®</sup>), a research-validated approach aimed at strengthening students' academic language and student involvement in learning, is one of the major initiatives taken by the district in 2010-11 in order to exit District Improvement. SIOP<sup>®</sup> is an instructional approach that has been nationally recognized to primarily support LEP students and their academic language development. Since the eight components of SIOP<sup>®</sup> are in close alignment with nationally recognized Marzano's best instructional practices (Marzano et al., 2001), SIOP<sup>®</sup> has been used in WCPSS as a universal instructional approach that supports all groups of students in all subject areas. The three strategies developed within the SIOP<sup>®</sup> framework that strengthen its impact were: training, coaching, and use of SIOP<sup>®</sup> lessons.

### IMPLEMENTATION

#### SIOP<sup>®</sup> Training in 2010-11

2010-11 SIOP<sup>®</sup> teacher training was delivered to 958 teachers by the SIOP<sup>®</sup> trainer, 6 SIOP<sup>®</sup> coaches, and consultants from Pearson Teacher Education and Development Group. As shown in Table 4, 291 teachers were trained in targeted schools and 667 in non-targeted schools. The total number of classroom teachers who were SIOP<sup>®</sup> trained from 2007-08 to 2010-11, was 2,639. For the total number of SIOP<sup>®</sup> trained classroom teachers disaggregated by school see Appendix A2. In addition to teachers being trained, school administrators (18), teaching assistants (37), and central office personnel (31) were also trained.

**Table 4**  
**Summary of Number of SIOP<sup>®</sup>-Trained Teachers**

2010-11	Number Trained
Non-targeted schools*	667
Targeted schools**	291
<b>Total trained in 2010-11</b>	<b>958</b>
<b>Total Trained from 2007-08 to 2010-11</b>	<b>2,639</b>

\*Non-targeted schools represent the entire school system. \*\* Nine schools were targeted in 2010-11.

As in the previous years, the SIOP<sup>®</sup> trainer provided the bulk of the professional development, although the training was a collective effort of the trainer, SIOP<sup>®</sup> coaches, and the District Improvement coordinator. In their sessions, the trainers focused on the development of academic language and increased student involvement in learning. In 2010-11, the training was made more content-specific to make it more relevant to classroom teachers and the subject areas they teach. For example, in addition to the regular concentration on language arts and mathematics, the SIOP<sup>®</sup> trainer also focused on social studies. A SIOP<sup>®</sup> coach, in collaboration with the school-based science coordinator, provided training in science. Using research-based SIOP<sup>®</sup> strategies, the trainers highlighted use of conceptual rather than procedural approaches to teaching and learning (lesson preparation SIOP<sup>®</sup> component) and discussed ways of strengthening the role of the teacher as a facilitator in the learning process. The training promoted use of small groups, student talk (interaction component of SIOP<sup>®</sup>), and instructional strategies to involve students in more active participation in the learning process (interaction component and lesson delivery component of SIOP<sup>®</sup>).

Training took place either at designated WCPSS training sites or at the school sites. Training at school sites frequently involved training of the entire staff. In 2010-11, seven schools received school-wide training from the SIOP<sup>®</sup> trainer. These included Daniels, Centennial, and Wendell Middle Schools, and Green, Underwood (Foundations of SIOP<sup>®</sup>), Kingswood, and Sycamore Creek Elementary Schools. Unlike the trainer, the coaches trained teachers only at the school sites. The District Improvement coordinator provided school-wide training on SIOP<sup>®</sup> foundations at Kingswood Elementary School where 48 teachers were trained.

In spring 2011, an online option for SIOP<sup>®</sup> training was offered for the first time; 43 teachers enrolled into the session facilitated by the SIOP<sup>®</sup> trainer and a consultant. Based on the favorable feedback given by the participants, the online training appeared to have been successful. Training for school staff other than classroom teachers (school administrators and teacher assistants) was also offered in 2010-11. Because school administrators look for implementation of SIOP<sup>®</sup> during their walkthroughs, 18 principals and assistant principals from nine schools received SIOP<sup>®</sup> training by attending the SIOP<sup>®</sup> overview and implementation sessions. The SIOP<sup>®</sup> coach at Hodge Road and Fox Road Elementary Schools also trained 37 teaching assistants.

### **Coaching Support**

In 2010-11, four full-time and two part-time SIOP<sup>®</sup> coaches (and two coaches hired in late spring) offered training and coaching support to teachers in seven elementary schools and three middle schools. Some training was provided in collaboration with media specialists or instructional resource teachers (IRTs). Training was content specific and targeted the needs of subject area or grade level teachers. Areas in need of coaching support were identified by examining student data, grade level needs, teachers' concerns, and coaches' classroom walkthrough results.

Similar to 2009-10, coaching at two middle schools was focused on grade level support (grades 6 and 7). To make it more relevant, group training was offered to teachers in the same subject area. For example, training of mathematics and science teachers focused on mathematics and science, and training of language arts and social studies teachers focused on literacy.

Coaching support was provided either in the use of SIOP<sup>®</sup> strategies (for example, strategies aimed at developing students' higher-order thinking skills), in curriculum-related questions, or in supporting teaching of individual students. In addition to offering SIOP<sup>®</sup> training and providing coaching support to individual teachers through a coaching cycle (co-planning, modeling use of SIOP<sup>®</sup> strategies, pre-conference, observation, post-conference), at least two of the SIOP<sup>®</sup> coaches took their training and coaching a step further. These coaches offered teachers opportunities to conduct peer observations in the subject area in the same school or in another school. Following the observations, coaches conducted reflective sessions on the use of SIOP<sup>®</sup> strategies observed in the peer classrooms. Coaches noticed that peer observations seemed to make some teachers more reflective about their own teaching.

In the spring of 2011, a District Improvement team developed a survey to solicit feedback on coaching support received in 2010-11 from elementary school teachers in targeted schools. Evaluation and Research Department (now Data and Accountability Department) staff disseminated the survey, which was sent to all elementary school teachers in targeted schools. Two reminders were sent. Out of 223 teachers who received the survey, 123 responded (55% response rate).

Middle school teachers received a separate survey on SIOP<sup>®</sup> coaching support in the spring of 2011. Unlike the elementary school survey which targeted all classroom teachers, the middle school survey was only sent to those who had been in direct contact with the coach, which limited the potential number of respondents. The decision was made by the program coordinators, who did not want to survey all teachers who may not have received coaching support. Out of 18 recipients who worked with the SIOP<sup>®</sup> coach in two middle schools, 8 responded (44% response rate).

The elementary and middle school survey results are presented in Appendix A3. Responses indicate that coaches reached most teachers and provided services viewed as valuable. Summary findings from the elementary school survey analysis are presented further. Middle school survey results are not discussed in detail because they only represented eight teachers.

Most teachers were reached by the SIOP<sup>®</sup> coaches. Out of 109 teachers in targeted elementary schools who indicated that they had a SIOP<sup>®</sup> coach in their school in 2010-11, 91 teachers (84% of all respondents) stated that they worked with a SIOP<sup>®</sup> coach. Weekly or monthly contact was most frequent for coaching. Of the 91 teachers in elementary schools who worked with a SIOP<sup>®</sup> coach, the largest proportion of teachers (42%) received coaching support weekly or monthly. Among other teachers, one fourth met with their coach three to five times a year, and 16% met with the coach one to two times a year.

**Coaching settings.** A large percentage of survey respondents in elementary schools (80%) received individual support from a SIOP<sup>®</sup> coach. Teachers also frequently met with the coach at grade level meetings, in Professional Learning Teams (PLTs), or in study groups, see Table 5.

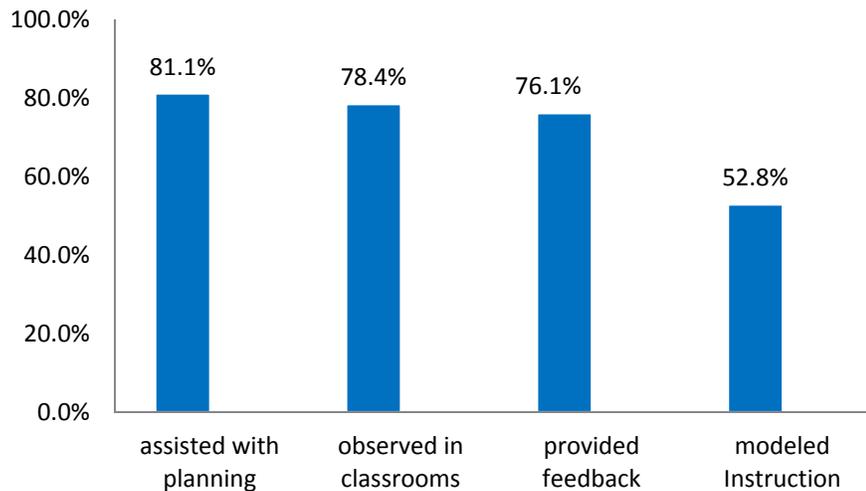
**Table 5**  
**Group Settings Where Elementary School Teachers Met with the SIOP<sup>®</sup> Coach**

<b>Settings</b>	<b>Percent of Elementary School Teachers n= 91</b>
Grade level meetings	51%
Professional Learning Teams	33%
Study groups	42%
Modeling for a small group	na
<b>Individual support</b>	<b>80%</b>

Note: Percentages are based on the elementary school survey results in Appendix A3.

**Coaching Cycle.** We asked the teachers about the types of individual support provided. Options listed were the components of the coaching cycle: co-planning with the teacher, co-teaching, pre-observation conference, classroom observation, and post-conference. According to elementary school teachers, SIOP<sup>®</sup> coaches offered teachers all components of the coaching cycle: assisting teachers with planning (81%), classroom observations (78%), or observation feedback (76%). Fewer teachers observed coaches modeling instructional practices (53%).

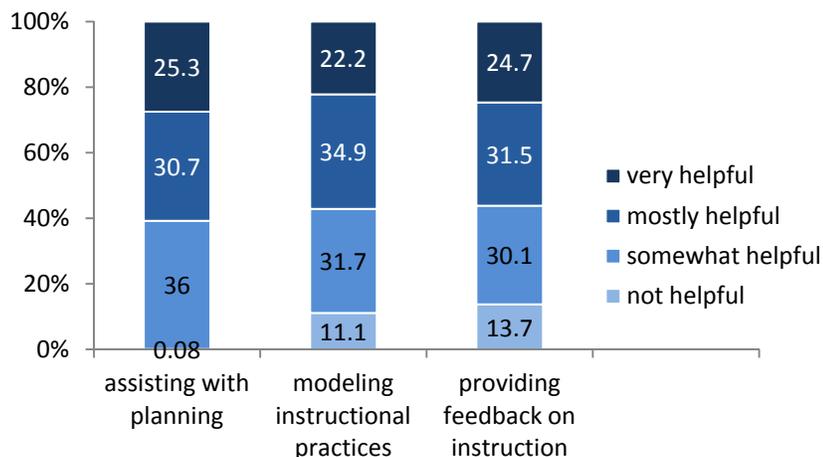
**Figure 1**  
**Type of Support Received by Elementary School Teachers**  
**From their SIOP<sup>®</sup> Coach in 2010-11**



**Helpfulness of Coaching Support.** Over half of the teachers who received one-on-one support felt that their SIOP<sup>®</sup> coach was “very” or “mostly helpful.” About one-third (30% to 36%) rated the coach as “somewhat helpful” on all items. A small percentage (8% to 14%) found their SIOP<sup>®</sup> coach not helpful.

Figure 2

Measuring Helpfulness of Coaching Support



**Areas of instructional support provided by SIOP® coaches.** Based on the survey, elementary school teachers received various types of support from their SIOP® coach. As expected, most received support in implementation of strategies to support students learning or to support AYP subgroups (85%). The majority also received instructional resources (67%); and some were given suggestions in analyzing assessment data to plan and deliver instruction (30%), see Elementary School Teacher Surveys, Appendix A3.

As desired, after teachers had begun working with the SIOP® coach, the majority saw growth in their ability to use instructional strategies to support student learning or to support AYP student subgroups (92%) and improved ability to use differentiation (40%), see Appendix A3. Only 37% said their ability to address the needs of struggling students across AYP subgroups had improved.

At least 45% of the teachers noticed positive effects on students’ level of engagement and classroom performance after they began working with the SIOP® coach. Improvement in student motivation was noticed less often (40%).

Some aspects of coaching were considered especially helpful. Teachers valued the knowledge and resources that they could apply in the classroom to benefit their students: awareness of research-based strategies, ideas on how to implement effective SIOP® strategies, and instructional resources. Some comments from teachers in the targeted elementary schools illustrate the support that their SIOP® coach provided in 2010-11.

A comment from a teacher in an elementary school showed that she valued:

“The practical and effective strategies my SIOP® coach provides for me to continually implement in the classroom to assure all my students are engaged, comprehending and feeling confident, participating, and asking questions. Being able to address specific needs in my classroom in such a direct and effective way has been extremely helpful. Additionally,

some techniques to use to quickly assess understanding in a way that makes students at ease and gives me valuable information during instruction, as well as after. Lastly, her assistance with strategies to build background, introduce and reinforce key vocabulary and maintain a classroom rich in differentiation and positive support systems for all my students.”

Comments from other targeted schools:

“On SIOP<sup>®</sup> training days our SIOP<sup>®</sup> coach facilitates discussion and group activities while ensuring that these are meaningful.”

“Our SIOP<sup>®</sup> coach is extremely knowledgeable of LEP students and their backgrounds. She builds relationships with students as well as teachers. Our SIOP<sup>®</sup> coach stands up for what she thinks is best for our students.”

“She is very approachable, nonjudgmental and very supportive of teachers. She values our time and provides us with the appropriate level of support. Her training days have been very helpful. She is always visible and not remaining in her office. She offers great ideas and feedback.”

**SIOP<sup>®</sup> Focus Lessons**

The third type of approach taken by SIOP<sup>®</sup> in enhancing instruction was offering elementary and middle school teachers the language arts and mathematics lessons enriched with SIOP<sup>®</sup> strategies (see SIOP<sup>®</sup> logic models in Appendix A1). This approach was continued from 2008-09 and was designed to save teachers lesson planning time and support their lesson delivery. Lessons were selected in collaboration with curriculum area specialists. By 2010-11, over 1,000 lessons in elementary, middle, and high school language arts and mathematics were enriched with SIOP<sup>®</sup> strategies. The lessons were labeled with a SIOP<sup>®</sup> icon and placed in C-MAPP. See Table 6 for a breakdown of the number of SIOP<sup>®</sup> lessons available by subject area and grade level. The SIOP<sup>®</sup> lessons in language arts strengthened the literacy component. The SIOP<sup>®</sup> lessons in mathematics allowed for better use of language aspects of mathematics and lessons objectives.

**Table 6  
Number of SIOP<sup>®</sup> Lessons by Subject by Grade Available in 2010-11 in C-MAPP**

Elementary School				
Grade 2	Grade 3	Grade 4	Grade 5	Total
<b>Language Arts</b>				
51/170	79/134	73/135	62/144	<b>265</b>
<b>Mathematics</b>				
na	15/150	16/163	16/153	<b>47</b>

Interpretation example: 51/170 means that 51 of 170 lessons in grade 2 were SIOP<sup>®</sup> lessons.

**Table 6 (continued)**  
**Number of SIOP<sup>®</sup> Lessons by Subject by Grade Available in 2010-11 in C-MAPP**

Middle School			
Grade 6	Grade 7	Grade 8	Total
<b>Language Arts</b>			
66/180	65/180	68/180	<b>199</b>
<b>Mathematics</b>			
36/180	64/180	41/180	<b>141</b>
<b>Pre-Algebra and Algebra I</b>			
54/180	39/180		<b>93</b>

High School	
Algebra I	58/90
Biology	15/90
Competency Intervention -reading	20/90
Competency Intervention –reading (Blackboard)	90/90
US History	12/90
Civics and Economics	62/90

Interpretation example: Out of 90 Algebra I lessons, 58 lessons were enriched with SIOP<sup>®</sup> strategies.

According to feedback provided in 2009-10, teachers noted that they had experienced difficulty creating language objectives in addition to content objectives for each lesson. In 2010-11, following the recommendations of the 2009-10 evaluation report, a video lesson was created and made available for all teachers explaining the process of creating language objectives.

To examine their perceptions, teachers in targeted schools were asked for their feedback on the use of the SIOP<sup>®</sup> lessons. The comments collected at the schools by the SIOP<sup>®</sup> coaches were overwhelmingly positive and showed that teachers not only had been using the SIOP<sup>®</sup> lessons but found them a great resource. Teacher comments showed that SIOP<sup>®</sup> lessons:

- saved them time;
- were very helpful in planning;
- provided teachers with both content and language objectives;
- helped create objectives and activities to use in the classroom;
- gave the exact language to use in the classroom;
- broke down the vocabulary;
- provided definitions; and
- suggested hands-on activities.

As an example, a teacher made a comment that even though she had been trained in SIOP<sup>®</sup>, she “did not always think about using the activities that help strengthen the language development or conceptual understanding.” SIOP<sup>®</sup> lessons were helpful in that respect. Another teacher found the way to adapt her use of SIOP<sup>®</sup> lessons, some of which she found somewhat lengthy, by shortening them or incorporating only some aspects. A complete list of teacher comments and suggestions on SIOP<sup>®</sup> lessons is included in Appendix A4.

### **Implementation of the SIOP<sup>®</sup> Strategies in Targeted Schools**

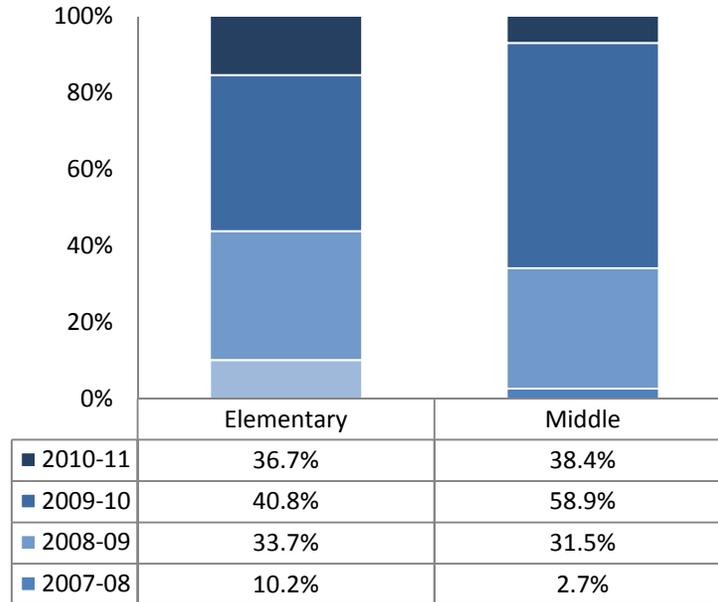
**Observation Results.** Classroom observations generally serve as a primary source of data when examining the levels of implementation of training and coaching. In 2010-11, PRAXIS Research Inc. was contracted to conduct classroom observations of SIOP<sup>®</sup> trained teachers in targeted schools. This group has extensive experience with SIOP<sup>®</sup> observations and research. PRAXIS Research Inc. used proportional random sampling of teachers in targeted schools to ensure that all targeted schools with at least three years of coaching, all subjects, and all grade levels were proportionally represented.

**Characteristics of the Observed Teachers.** All of the 15 elementary and middle schools that had a SIOP<sup>®</sup> coach for at least three years were observed. A total of 171 classrooms were observed, see Appendix A5. The observers were interested in the evidence of implementation of four to six of the eight SIOP<sup>®</sup> components based on the SIOP<sup>®</sup> logic model goals. Although a variety of subject areas were observed, the primary focus was on mathematics and language arts, see Appendix A5. A research-based instrument with a five-point rating scale was used for observations, adapted from the protocol recommended by SIOP<sup>®</sup>. The lowest rating of “one” represented low implementation and the rating of “five” represented high implementation. Four rating groups were then created, from the lowest to the highest: 1-1.99, 2-2.99, 3-3.99, 4-5. A total of 171 classrooms were observed, including 58 mathematics and 61 language arts classrooms.

The observed teachers represented different school levels and different subjects: elementary and middle school language arts, mathematics, science, social studies, and other subjects. The time when teachers received the SIOP<sup>®</sup> training also varied (from 2008-09 to 2010-11). For observed teachers, more training was received in 2009-10 than in other years. Training at the elementary school level was almost evenly distributed across three years, with middle school teachers having over half of teachers trained in 2009-10, see Figure 3.

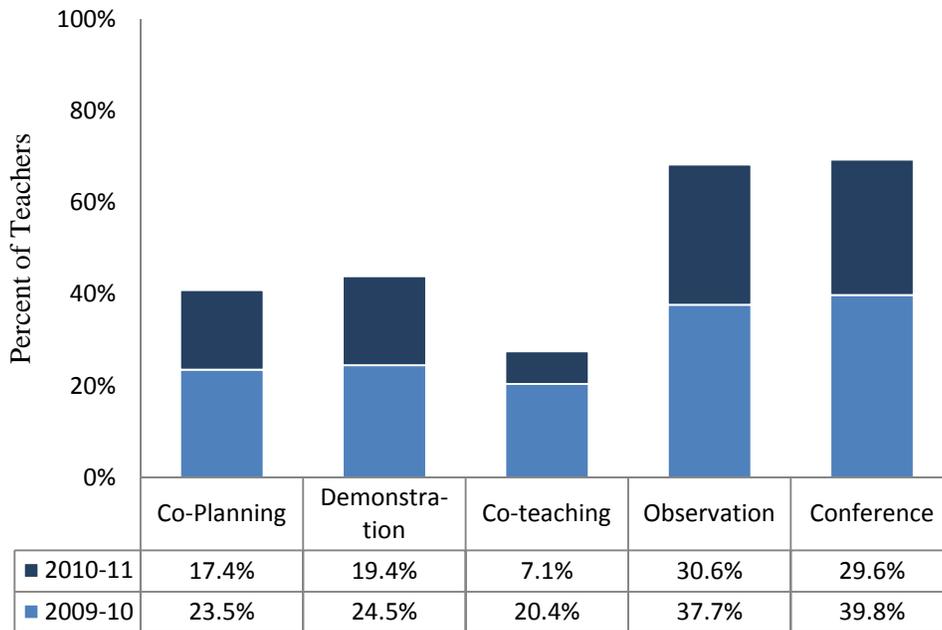
**Figure 3**

**Percent of Observed Teachers by School Level Who Received Training per Year**

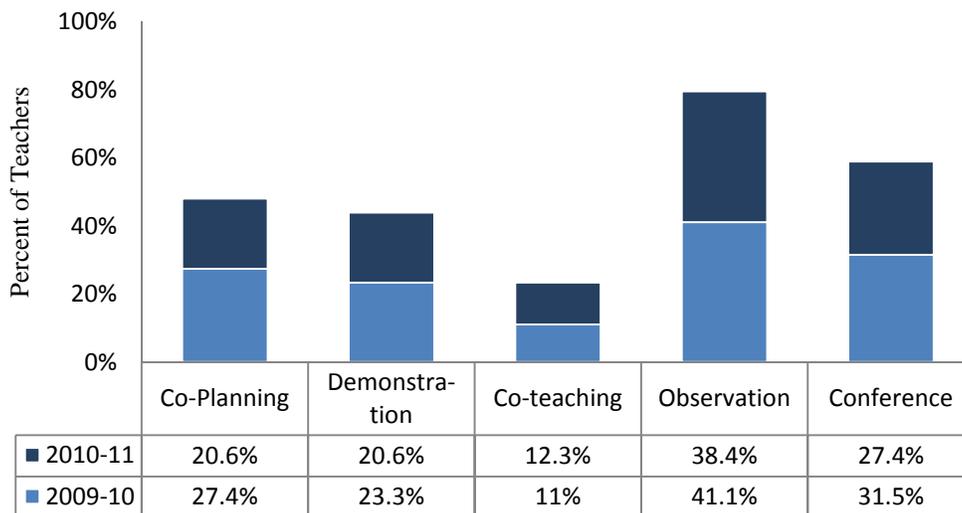


Both at the elementary and middle school levels, coaching support was also more frequently received by teachers in 2009-10 than in 2010-11, see Figures 4 and 5. This was mostly because fewer schools were targeted for coaching support in 2010-11 than in 2009-10. Figure 5 reveals that there were fewer post-observation conferences offered to teachers than observations. Co-teaching was also low.

**Figure 4**  
**Coaching Support Received in 2009-10 and 2010-11 by**  
**Observed Elementary School Teachers**



**Figure 5**  
**Coaching Support Received in 2009-10 and 2010-11 by**  
**Observed Middle School Teachers**

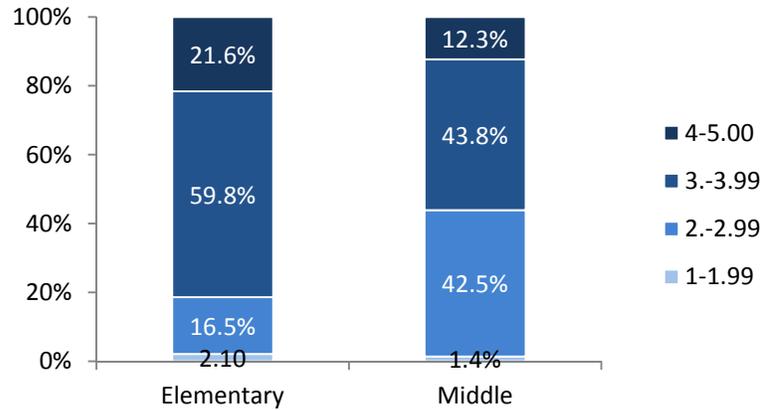


**Elementary and Middle School Implementation Levels**

Implementation of SIOP® strategies in observed classrooms was rated on a scale of 1 (“not evident”) to 5 (“highly evident”). Patterns varied for elementary and middle schools. Typical

implementation levels at both elementary and middle schools were at 3-3.99, or above average. However, at elementary schools 60% of teachers and at middle schools 44% were rated at that level. Overall, elementary school mastery of SIOP® was stronger than that of middle schools: 81% of teachers were rated above average at elementary schools, while only 56% received similar ratings at middle schools.

**Figure 6**  
**Implementation Ratings at Elementary and Middle Schools**



Note: 3 to 3.99 and 4 to 4.99 are above the average implementation levels;  
1 to 1.99 and 2 to 2.99 are below the average implementation levels.

**Implementation Levels by Subject Area**

Observers also provided SIOP® implementation ratings in mathematics, language arts, and all other subject areas (science, social studies, English as a Second Language (ESL), etc.). Most frequently implementation was at above average levels (ratings of 3 to 3.99). Unfortunately, the second most frequent rating was at 2-2.99, which is below average.

**Table 7**  
**Implementation Ratings by Subject Area**

Rating Groups	Mathematics	Language Arts	All Other Subjects
4-5.00	8 13.8%	11 18.3%	11 21.6%
3-3.99	35 60.3%	31 51.7%	23 45.1%
2.-2.99	15 25.9%	16 26.7%	16 31.4%
1-1.99	0 0.0%	2 3.3%	1 2.0%
Subject Area Total	58 100%	61 100%	51 100%

Overall, SIOP<sup>®</sup> component mastery in 2010-11 was higher at elementary than at middle schools. At elementary schools, about half of observed teachers showed SIOP<sup>®</sup> mastery, with higher mastery levels in mathematics than language or other subjects. At middle schools, SIOP<sup>®</sup> mastery levels were overall lower. The trend opposite to elementary schools could be observed by subject area in middle schools: mastery was the lowest in mathematics, and higher in other subject areas.

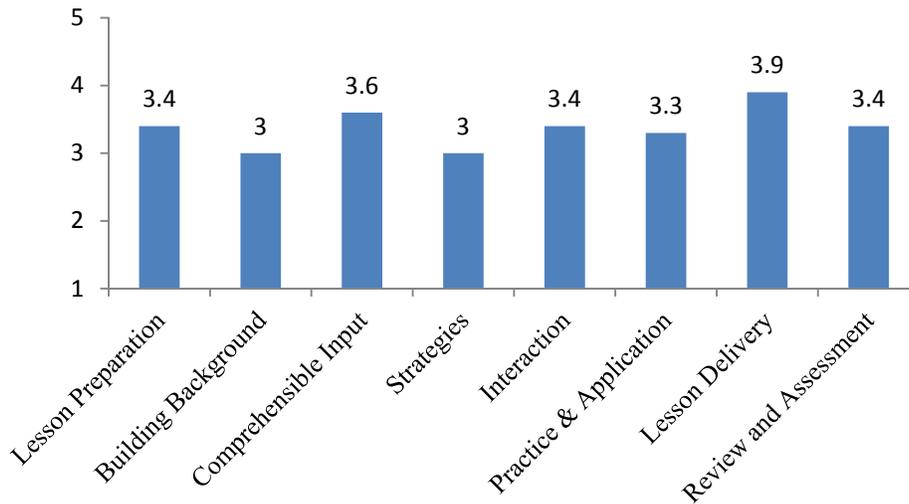
**Table 8**  
**SIOP<sup>®</sup> Mastery by School Level and Subject**

SIOP <sup>®</sup> Components	Elementary			Middle		
	Mathematics n=35	Language Arts n=42	Other n=21	Mathematics n=23	Language Arts n=19	Other n=30
Teachers who mastered four or more SIOP <sup>®</sup> components	20 57.1%	22 52.4%	10 47.6%	4 17.4%	5 26.3%	11 36.6%

**Mastery of SIOP<sup>®</sup> Components**

Observers also examined which of the SIOP<sup>®</sup> components were mastered by teachers better. The mean implementation rating for SIOP<sup>®</sup> components in observed classrooms was at 3.4 (3 being rated as “somewhat evident”), see Figure 7. Of all SIOP<sup>®</sup> components, “lesson delivery” was rated the highest (3.9). This implies that content and language objectives were supported by lesson delivery; students were engaged; and pacing of the lesson was appropriate. The lowest rated were the “building background” and “strategies” components (3.0) indicating that the opportunities for students to use strategies, tasks promoting higher-order thinking, and emphasis on key vocabulary were less evident.

**Figure 7**  
**Rating Means by SIOP<sup>®</sup> Components**



### SIOP<sup>®</sup> Implementation by Training and Coaching

Teachers who were SIOP<sup>®</sup> trained or coached in 2010-11 implemented SIOP<sup>®</sup> to a somewhat fuller extent than those trained in 2009-10 only or both years, although the difference was not statistically significant. The reason for little difference may be that the targeted schools and the coaches remained the same in 2008-09 and 2009-10, see Figure 8.

In short, 15 elementary and middle schools at all grade levels were observed; 171 teachers with at least two years of SIOP<sup>®</sup> training /coaching were included in observation sample. Most frequent rating was 3 to 3.99 (above average). Implementation ratings were higher at elementary than middle schools (81% vs. 56%). Mastery of 4 or more SIOP<sup>®</sup> components was also higher at elementary schools. Among SIOP<sup>®</sup> components, lesson delivery was rated the highest (at 3.9).

**Figure 8**  
**Average Ratings of Teachers Who Received Training/Coaching**  
**in 2009-10, 2010-11, or Both Years**



### Comparison of WCPSS to a Similar School District

To have a reference point for whether WCPSS implementation was at the level to be expected, a demographically similar large school district was identified and its observation data were compared to WCPSS data. The district compares well to WCPSS in student demographics, number of schools, and SIOP<sup>®</sup> focus on elementary and middle schools. Its professional development plan and coaching assistance are similar to WCPSS, with the number of coaches varying from few to several over a seven-year period of implementation. A brief discussion of observed similarities and differences in implementation is offered in this section. Appendix A5 contains a more detailed comparison.

Implementation of most SIOP<sup>®</sup> indicators was comparable for both districts. Classroom observations showed that both districts were similar in the following:

- content and language objectives in the observed classrooms were clearly defined;
- the use of supplemental materials, hands-on materials, and manipulatives was comparable;
- key vocabulary was emphasized;
- student engagement was at similar levels; and
- teachers provided comparable amount of feedback to students.

Some significant differences in implementation ratings were also found. To identify the differences, a series of t-tests were conducted, which showed higher ratings for WCPSS compared to the other school system in implementation of a number of indicators, including:

- use of content concepts appropriate for student age and educational background;
- making links to students' background and experiences;
- teachers' speech being appropriate for students' proficiency levels;
- teachers' use of a variety of question types including those promoting high-order thinking skills;
- use of sufficient wait time for student responses; and
- use of activities to integrate all language skills.

WCPSS teachers were not as effective as teachers in the similar school district in providing activities for students to apply content and language knowledge in the classroom.

## **SIOP<sup>®</sup> SUMMARY**

SIOP<sup>®</sup> has been a major approach undertaken by WCPSS with the intent of improved subgroup performance and exiting District Improvement. The general objective was to make effective instructional practices accessible to all schools through training and SIOP<sup>®</sup> lessons and provide more professional development for teachers in schools with high numbers of targeted subgroups through coaching. The initiative included three elements: SIOP<sup>®</sup> training, SIOP<sup>®</sup> coaching, and SIOP<sup>®</sup> lessons.

Examination of 2010-11 implementation data show that SIOP<sup>®</sup> met or exceeded almost all targets outlined in its logic models (for objectives with data available). Teacher training that included a new online training option was more focused on specific needs of the schools and included more school-wide training than in 2009-10. By the end of 2010-11 school year, 2,639 teachers had been SIOP<sup>®</sup> trained (unduplicated count), with 637 teachers trained in nine targeted schools. SIOP<sup>®</sup> lessons were written for various subject areas and grade levels for elementary, middle, and high schools. Coaching support was found helpful by teachers who received it and focused both on EOG subject areas and other subjects, such as science and social studies. Classroom observations showed that WCPSS teachers implemented SIOP<sup>®</sup> strategies at similar or higher levels than a demographically similar large school district. Higher implementation was found more at elementary than middle schools. Among subject areas, implementation was

higher in mathematics than in reading/language arts. A 2010-11 SIOP<sup>®</sup> impact report addresses student outcomes to show how implementation of SIOP<sup>®</sup> has affected student outcomes.

**Table 9**  
**Summary of District Improvement 2010-11 SIOP<sup>®</sup> Goals and Implementation Levels**

Goals	Actual Implementation Levels	Status (Met or Not Met)
<b>Targeted Schools</b>		
Incoming teachers receive SIOP <sup>®</sup> training in schools	291 teachers trained in targeted schools including incoming teachers.	Met
One school completes school-wide training	Hodge Elementary School completed training.	Met
85% of teachers receive coaching support in targeted schools	Teachers in 6 elementary and 3 middle schools received coaching support; 84% of elementary school teachers responding to the survey indicated that they worked with the coach.	Nearly Met
100% of schools develop and implement yearly SIOP <sup>®</sup> plan	According to the District Improvement Coordinator, all schools developed SIOP <sup>®</sup> plans in 2010-11.	Met
100% of schools include SIOP <sup>®</sup> in School Improvement (SIP) plan	Almost all schools included SIOP <sup>®</sup> in SIP plans.	Nearly Met
90% of content teachers are aware of the SIOP <sup>®</sup> lessons	All teachers in targeted schools who responded to the survey were aware of the SIOP <sup>®</sup> lessons.	Met
70% of those who are aware of SIOP <sup>®</sup> lessons use/reference them 1 to 3 times a week	Survey comments indicated that teachers not only have been using the SIOP <sup>®</sup> lessons but found them a great resource. The survey also showed that all teachers who were aware of the SIOP <sup>®</sup> lessons used them.	Met
10% of content teachers utilize 4 to 6 components of the SIOP <sup>®</sup> model in lesson planning and delivery	Classroom observations of content area teachers showed that 58% of content teachers in targeted schools were implementing 4 to 6 SIOP <sup>®</sup> components at higher than average levels.	Exceeded
50% of SIOP <sup>®</sup> trained teachers apply SIOP <sup>®</sup> principles in their classroom instruction	Half of all observed classrooms were rated at high implementation level of 3-3.99 (high implementation of SIOP <sup>®</sup> principles); about one-fifth were rated 4-4.99 (the highest level). Thus, at least 70% of the observed teachers had applied SIOP <sup>®</sup> components.	Exceeded

Table 9 continued on next page

**Table 9 (continued)**

**Summary of District Improvement 2010-11 SIOP® Goals and Implementation Levels**

<b>Non-Targeted Schools</b>		
<b>Goals</b>	<b>Actual Implementation Levels</b>	<b>Status (Met or Not Met)</b>
150 teachers will receive SIOP® training	667 teachers were trained in non-targeted schools.	Exceeded
Online foundations training is available through Blackboard	Online SIOP® training was offered in spring 2011; 43 teachers enrolled into the session facilitated by the SIOP® trainers and a consultant.	Met
Increase opportunities for hands-on materials and manipulatives use for targeted groups of students	SIOP® trainer added a focus on the use of hands-on materials and manipulatives to support AYP subgroups. Praxis observation data showed use of manipulatives and hands-on materials was “somewhat” to “highly evident” in 43% of observed classrooms.	Met
2 schools complete schoolwide training	Seven schools received school-wide training or SIOP® overview: Daniels, Centennial, and Wendell Middle Schools, and Kingswood, Green, and Sycamore Creek Elementary Schools. School-wide training were also provided at Underwood Elementary school where 48 teachers were trained.	Exceeded
60% of all grade 2 to 8 trained teachers are aware of the SIOP® lessons	The survey was not administered to teachers at non-targeted schools due to constraints on the dissemination of surveys; thus this objective could not be measured.	na
60% of those who are aware of the SIOP® lessons use them	The survey was not administered to teachers at non-targeted schools due to constraints on the dissemination of surveys; thus this objective could not be measured.	na



## SECONDARY MATHEMATICS INITIATIVE

Below is a summary of the District Improvement secondary mathematics initiative with goals specified in the logic model, strategies, and the description of 2010-11 implementation levels.

### GOALS

In brief, the secondary mathematics initiative goals are as follows:

Provide professional development to middle and high school Algebra I teachers and to middle school teachers teaching courses leading up to Algebra I.



Raise teachers' awareness about research on effective mathematics instruction and strategies to meet diverse needs of their students.



Utilize strategies learned in professional development and enhance student involvement and conceptual understanding of mathematics.



Increase proficiency rates in Algebra I EOC and 6-8 EOGs by 3-5% for AYP subgroups in 2011-12



Fewer AYP targets in mathematics missed

To align their efforts with the goals, the secondary mathematics team developed a logic model outlining the needs, the long-term goals, activities designed to meet the goals, as well as short-term and intermediate outcomes, see Appendix B1.

### STRATEGIES

The 2010-11 secondary mathematics initiative focused on the training of mathematics teachers, with a primary target on Algebra I teachers. Thus, a single strategy for the secondary mathematics initiative in 2010-11 was training of self-selected middle and high school mathematics teachers in use of research-based, student-focused strategies and activities, technology, and differentiation.

## IMPLEMENTATION

### Teachers Trained in 2010-11

In spring and summer 2011, professional development was offered to secondary school mathematics teachers in research-based strategies and activities that support student involvement in the learning process and conceptual understanding of mathematics. The initiative was part of the continued effort from 2009-10 to support middle and high school mathematics teachers and particularly Algebra I teachers. The types of workshops provided either in one or both years were Foundational Algebraic Concepts, Algebra I Concepts, Technology training, and Differentiation training.

**Table 10**  
**2009-10 and 2010-11 Secondary Mathematics Training**

Session Name	Target Audience	Number of Sessions Provided	
		2009-10	2010-11
Technology Training (calculators)	MS and HS teachers	na	3 workshops, each focusing on a different calculator.
Algebra I Concepts	MS and HS teachers	One workshop on eight Mondays and one five-day workshop in summer 2010	One workshop on eight Mondays and two sessions of a five-day workshop in summer 2011
Differentiation Training	MS and HS teachers	Not offered	2
Foundational Algebraic Concepts	MS teachers	One workshop on 8 Mondays and one five-day workshop in summer 2010	Not offered

The goal of the training offered in both years was to increase teachers' knowledge of instructional strategies, and as a result, improve student proficiency scores. For example, Algebra I Concepts training was focused on the discussion of the approaches or strategies used in Algebra I that are aligned with current research and best practices. The strategies presented in the training illustrated some ways to increase student motivation and involvement in the learning process (use of background knowledge, math talk, collaborative learning, and use of manipulatives) and discussed psychological patterns of student learning (multiple intelligences).

In 2009-10, 99 teachers received training through the above mentioned workshops, almost reaching the targeted 100 teachers. In 2010-11, the number of newly trained teachers almost doubled and reached 184, just short of the desired level of 200, see Table 11.

**Table 11**  
**Number of teachers trained in 2009-10 and 2010-11**

Session Name	Number of Teachers Attending	
	2009-10	2010-11
Technology Training	Not offered	70
Math Matters	Cancelled	Cancelled
Algebra I Concepts	71	56
Differentiation Training	Not offered	58
Foundational Algebraic Concepts	28	Not offered
<b>Total</b>	<b>99</b>	<b>184</b>

In addition to training, two other activities were planned for 2010-11. Film clips of training were to be offered on the Blackboard for those who were unable to participate in the face-to-face training, but these were not created. Mathematics coaches were to be hired to support middle and high schools with high numbers of student subgroups performing below grade level. Hiring mathematics coaches for 2011-12 took place in spring 2011.

### Perceptions of the Quality of Training

Teacher feedback on the quality of training was collected either through e-Schools or through a survey. All feedback from e-Schools was 85% to 100% positive, see Appendix B2.

- Nearly all participants felt the trainer referenced scientifically-based research and best practices (95%-100%).
- About 90%-100% of teachers believed that training session content built on their prior experience or knowledge.
- The great majority of teachers believed that adequate time was given to teachers to reflect on how they would use new learning in their classrooms (85%-100%).

In 2009-10 and 2010-11, more mathematics teachers attended Algebra I Concepts training than any other training offered within the framework of secondary mathematics District Improvement initiative. Therefore, more detailed feedback was collected through a survey from Algebra I Concepts participants. The goal of the survey was to determine which modules—and which activities within modules—teachers rated as more effective or less effective and which they chose to use during the year. The modules were rated from “very” to “mostly effective” or from “somewhat” to “not effective.” Out of 52 teachers trained in Algebra I Concepts, 22 teachers responded to a request for feedback, which generated a 42.3% response rate. The respondents rated the modules in which they were trained and all activities within each module.

According to trained teachers, the most effective modules were Linear Functions, Patterns of Change, Systems of Equations, and Polynomials. Almost all reported that use of activities and strategies presented in the 2009-10 Algebra Concepts training increased students’ level of

engagement (95%), stating that student engagement increased either “somewhat” (67%) or “a lot” (29%), see Appendix B3 for more details. The majority of teachers felt that the strategies and activities provided in the training increased their students’ understanding of mathematical concepts (86%), stating that student conceptual understanding increased “somewhat” (62%) or “a lot” (24%).

Additionally, 36 of 60 differentiation training participants provided comments on their training, noting that the training was of high quality. They valued the hands-on activities, felt the training was relevant, and asked for a follow-up workshop.

### **Evidence of Application: What were the teachers’ training implementation levels?**

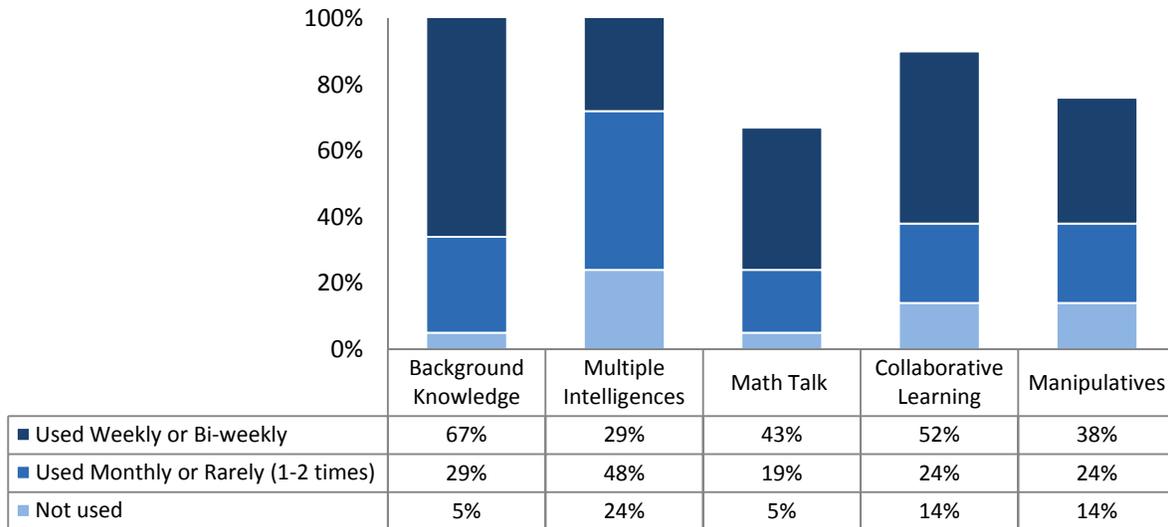
Teachers who received the 2009-10 Algebra I Concepts training provided their feedback on the application of the training they received. Overall, use of the training modules and strategies was uneven. Polynomials and Systems of Equations were the most frequently used modules, with at least 50% of teachers using three of the four strategies presented within each module. On the other hand, Inequalities, Quadratics Functions, and Modeling were the least frequently used, with less than half of teachers using any of the strategies offered in the training.

**Table 12**  
**The Training Modules from Most to Least Frequently Used**

<b>Module Number</b>	<b>Module Name</b>	<b>Number of Strategies Used by Half or More Teachers</b>
Module 7	Polynomials	3 of 4
Module 5	Systems of Equations	3 of 4
Module 4	Patterns of Change	4 of 7
Module 3	Linear Functions	2 of 5
Module 10	Mish Mash	1 of 3
Module 2	Proportional Reasoning	1 of 4
Module 6	Inequalities	0 of 5
Module 8	Quadratics Functions	0 of 4
Module 9	Modeling	0 of 4

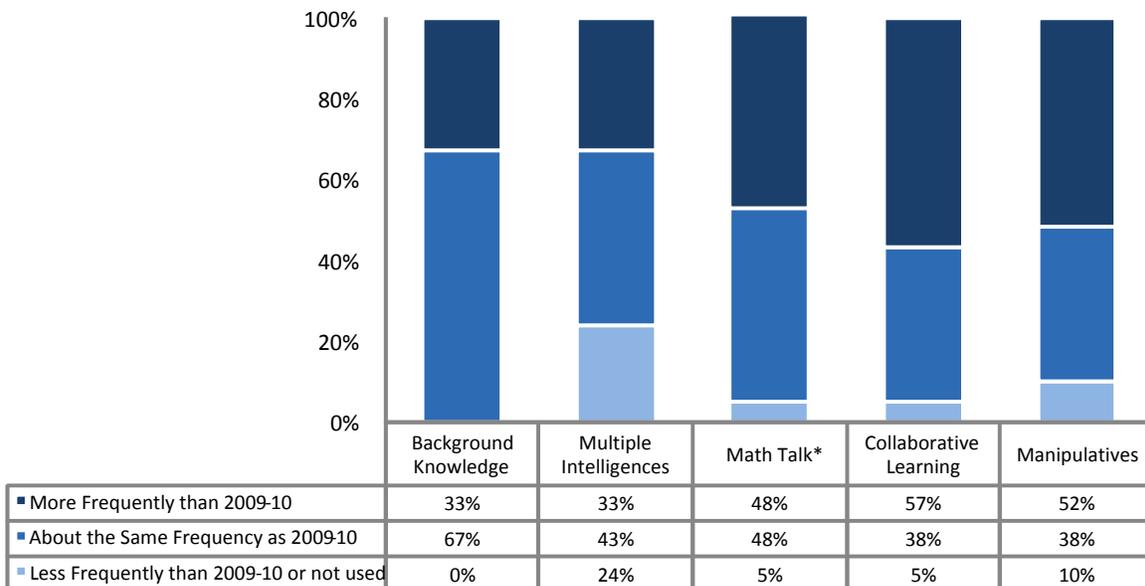
Figure 9 shows the use of strategies that comprised the training. See Appendix B3 for more details. The most frequently used strategies were background knowledge (67% of teachers used it bi-weekly or weekly) and collaborative learning (52% used bi-weekly or weekly). Math Talk, use of manipulatives, and multiple intelligences were used less frequently (43% to 29% of teachers using them weekly or bi-weekly).

**Figure 9**  
**Frequency of Application of Strategies**



One third to one half of teachers reported an increase in the use of strategies on which they were trained in 2010-11 to their use before the training. About half of teachers reported more frequent use of collaborative learning, use of manipulatives, and math talk. Only 33% of teachers reported more frequent use of student background knowledge and multiple intelligences. This may be either an indicator of higher prior awareness of these approaches or a sign of more difficulty implementing those.

**Figure 10**  
**Comparison of Strategy Use Frequency**



\*over 100% due to rounding

## SECONDARY MATHEMATICS INITIATIVE SUMMARY

The Secondary Mathematics Department developed an initiative to support mathematics instruction at the secondary level, since the district was in District Improvement in mathematics. The goal of the initiative was to provide additional support to grade 6-8 mathematics teachers and Algebra I teachers to help students who performed below grade level and who did not meet AYP targets.

In 2010-11, the only component of the initiative was teacher training. One hundred eighty four teachers, close to the expected 200, received training through the secondary mathematics initiative that used District Improvement funds. Teachers received training in various aspects and levels of mathematics instruction: Algebra I Concepts (hands-on activities designed to increase student engagement), Technology (calculators), Differentiation strategies (to meet varying student needs), and Foundational Algebraic Concepts. Most training was highly rated. Algebra I Concepts training implementation levels were measured through the survey of training participants. Only three of nine modules from Algebra I Concepts training were shown to be later applied by at least half of teachers. Other training modules were less frequently used. Most teachers reported that, as a result of implementation of the strategies, student engagement in the learning processes somewhat increased and student understanding of mathematics concepts somewhat improved.

**Table 13**  
**Secondary Mathematics Initiative Summary**

<b>Goals</b>	<b>Implementation</b>	<b>Met /Not Met</b>
Train 200 teachers in 2010. A total of 300-350 teachers are trained in two years.	184 teachers were trained in 2010-11. A total of 283 teachers were trained in two years.	Nearly Met
50% of trained teachers apply training strategies and activities in their instruction	53% to 86% of teachers regularly used the strategies they were trained in.	Met
50-60% of teachers apply research-based, student-focused activities such as conversations, math talk, and use of manipulatives in their instruction.	67% of trained teachers used background knowledge, and 52% used collaborative learning bi-weekly or weekly. Math Talk, manipulatives, and multiple intelligences were used less frequently (43%, 38%, and 29% used those bi-weekly or weekly).	Nearly Met
Enhanced student engagement and increased understanding of mathematics concepts	Almost all teachers (95%) implementing the activities reported that use of activities and strategies presented in the Algebra Concepts training increased students' level of engagement; 86% of teachers felt that the strategies and activities increased their students' understanding of mathematical concepts.	Met



## SECONDARY LITERACY INITIATIVE

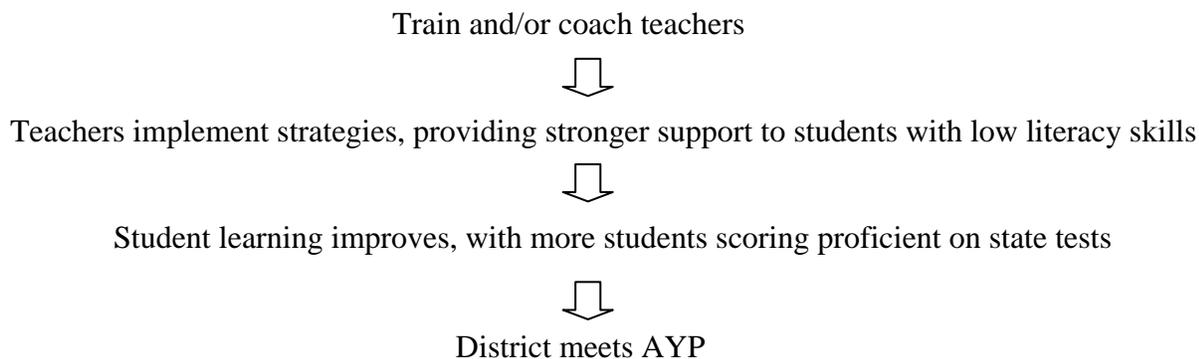
Training and coaching in reading were the two strategies to improve secondary teachers' ability to support students with below-grade-level reading skills. While training was open to all secondary schools, 12 schools were targeted for greater assistance based on achievement needs.

- In targeted schools in 2009-10, five coaches were hired and trained to provide support to 12 schools. Training and coaching was typically offered for 4-6 English teachers. Some support in setting up schools' systems and structures related to literacy was provided in collaboration with the school intervention coordinators. English Language Arts Professional Learning Team (PLT) meetings were the primary site for training. In 2010-11, 16 additional coaches were hired to provide mentoring support in 28 schools with the same model. However, only three coaches were funded through District Improvement funds.
- Across all secondary schools, the goal was to train 100 teachers in Reading Interventions for Adolescent Learners (RIAL) in 2009-10 and 50 additional teachers in 2010-11. Fifty more teachers were to receive Foundations of Reading training in 2010-11.

Some teachers received only training, some training and coaching, some only coaching, and some neither. Some of the training and coaching were paid for through District Improvement funds.

### GOALS

In general, the anticipated impact of the training and coaching was as follows:



A logic model, developed with the Secondary Literacy team, provides more specific information about the need for the initiative and the measurable short, intermediate, and long-term outcomes anticipated (see Appendix C1). This logic model informed the program evaluation.

### EVALUATION PLAN

The evaluation addressed the extent to which training was provided along with the training participation rates. The quality of training and coaching and implementation of the intended

strategies were other points of interest. Coaching support and collaboration of literacy coaches with intervention coordinators to provide reading intervention to teachers with students in need were discussed.

Several data sources provided data for this component:

- initial ratings of training in the electronic registration system for WCPSS (eSchools),
- follow-up results from three months after the training (eSchools), and
- spring 2011 electronic survey results related to coaching (distributed in April 2011).

## IMPLEMENTATION

### Training

Training on the topics below was made available to teachers from all secondary schools, see Table 14. Teacher participation was voluntary. As shown below, the sessions focused on several literacy-related topics. District Improvement funds covered stipends for teachers who received training or substitutes. Some training took place during the summer and some during the school year.

**Table 14**  
**Training Focus for Literacy Efforts 2009-10 and 2010-11**

Topic	Target Audience
Taking Action: Reading Interventions for Adolescent Learners (RIAL)	Grades 6-12: English/Language Arts, Special Education, English as a Second Language, Intervention
Foundations of Reading	K-5 general, K-12 intervention, Special Education, English as a Second Language

### Coaching

In 2009-10, District Improvement funds were used to hire five coaches to support 12 high schools with high percentages of incoming freshmen who scored level 1 or 2 (not proficient) on their Reading EOGs. Four coaches remained throughout the 2009-10 school year. In 2010-11, funds to hire 16 additional coaches and one coordinator were provided through special education funds to support secondary schools. In 2010-11, three coaches were funded through District Improvement. Timing of the receipt of both sets of funds was not ideal and did not allow the promise of long-term employment, which slowed the hiring process. By June 2011, a total of 14 coaches were employed and were supporting 28 schools. Only three coaches in eight schools were funded through District Improvement. Two coaches worked half time at two schools. One coach worked with four East Wake High Schools. The four small East Wake High Schools shared one coach, and two coaches served one school each on a half-time basis. The district coordinator for the coaching effort was hired in the fall of 2010, but left by mid-year. One of the literacy coaches moved into this opening in the middle of June, after finishing out the year at her school.

While literacy training was available to all of the district's 61 secondary schools, 12 schools were targeted in 2009-10 for more intensive professional development through coaching support. The 12 schools were selected based on the percentage of incoming freshmen who scored 1 or 2 on the grade 7 Reading EOG (grade 8 EOG was not yet available). In the first year at each school, the English Language Arts PLT meetings were to be the primary site for the coaching support to English I teachers. Literacy coaches frequently collaborated in this work with reading intervention teachers. More intense additional support beyond the PLTs was typically offered to four to six English I teachers at each school. In the second year, the focus eventually expanded to other content area teachers who were ready to work with the coach.

Coaches typically worked with individuals or small groups of teachers in coaching cycles. Teachers of English Language Arts, reading intervention teachers, and special education teachers were primarily involved at this point. Reading strategies were targeted both in the training and coaching. Some training and coaching was paid for through District Improvement and some through Special Education.

A key source of data for this question was a survey about several kinds of coaching support sent electronically via a Zoomerang survey tool to English I teachers. The teachers to be surveyed were identified by the coaches based on the coaching support provided during the year. The instrument with full responses for the items on Secondary Literacy Coaching is included in Attachment C3. With 98 survey requests sent and 50 returned, the survey had a 51% response rate.

Secondary literacy coaches were to provide job-embedded professional development on the best literacy practices through coaching. In addition, the coaches were to assist with the development of systems and structures to support targeted reading instruction. Developing systems and structures was defined as helping to put into place procedures to support student literacy that would last even after the literacy coaches were gone. As an example, a coach could help the school establish and begin implementing a plan for analyzing data to determine which students might need additional testing. This was done in order to understand student needs in receiving specific types of literacy support. In some cases, coaches were instrumental in helping to establish universal screening (typically for grade 6 or 9 students). In some cases, coaches helped the school establish a system/schedule for providing interventions. Although coaches were not given a specific list of systems and structures to put into place at each school (because schools were at different places and had different needs), they listed some of the activities to illustrate which systems and structures have been put into place. Below are some examples of activities coaches were engaged in to support systems and structures around literacy at schools:

- helped to develop a process for using screening assessments for reading;
- developed documents to guide discussions (for example, "Guiding Questions for Team Leaders about Literacy Data and Interventions" or "How can I incorporate literacy skills into my lessons to help more students access my content?");
- helped to develop and implement a schedule for literacy intervention;
- set up a process for regularly sharing vocabulary strategies;
- helped to implement Silent Sustained Reading through Homeroom;

- developed an adolescent literacy course for the district using blended model of face-to-face and online instruction; and
- served on committees (for example, “Literacy for All SIP Committee”).

**Training Participants**

Overall, 2010-11 training reached a total of 134 participants. Those trained included teachers of English/Language Arts, special education, English as a Second Language, intervention teachers, and possibly others. The number taking the Reading Interventions session (RIAL) exceeded the target but the Foundations of Reading did not meet the target. Overall, the number reached through training was small relative to the overall number of secondary teachers who might have benefited.

**Table 15  
Target Goals for Training Participation and Actual Participation in Literacy**

<b>Topic</b>	<b>2009-10</b>	<b>2010-11</b>
Taking Action: Reading Interventions for Adolescent Learners (RIAL)	<b>Target:</b> 100 (DI funded) <b>Actual:</b> 43	<b>Target:</b> 50 additional (DI funded) <b>Actual:</b> 104 in 2010-11.
Foundations of Reading	Not Available	<b>Target:</b> 75 teachers across 3 sessions (1 DI funded, 2 Sp Ed) <b>Actual:</b> 30 participants in one session

**Perceptions of Quality of Training**

Participants are to complete a survey in eSchools after the training. Only three trainings had been fully completed in time to review results for this evaluation. Return rates on the initial surveys were high (87.5% overall); those for the follow-up surveys were somewhat lower (56.3%).

**Table 16  
Training Participation in 2010-11**

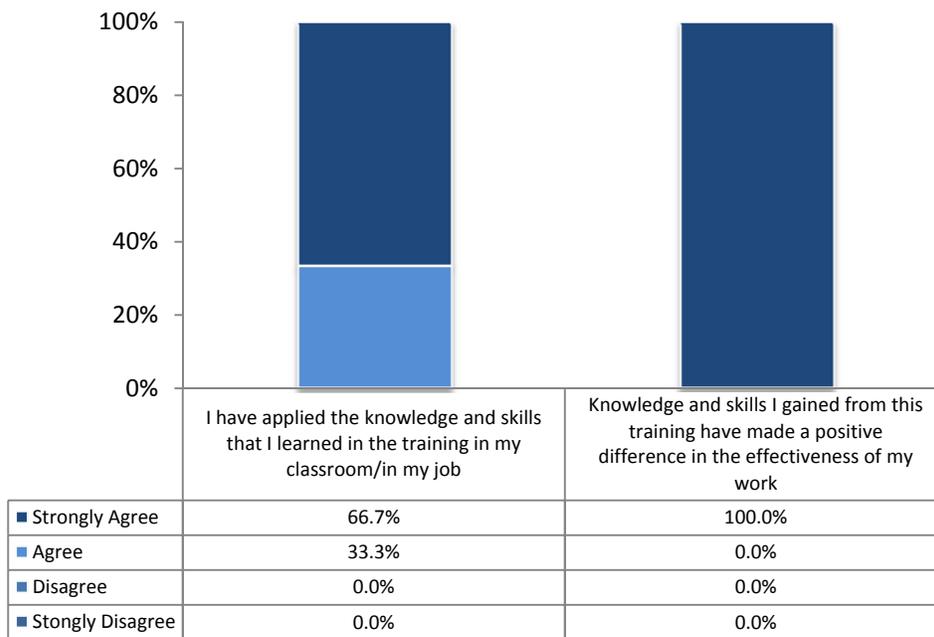
<b>Session</b>	<b>Number Attending</b>	<b>Number Responding Initially</b>	<b>Number Responding Follow-up</b>
Reading Interventions	31	27	13
Reading Interventions	21	21	17
Foundations of Reading	12	8	6
<b>Total</b>	<b>64</b>	<b>56 (87.5%)</b>	<b>36 (56.3%)</b>

Responses were quite positive.

- Most teachers responding to the session evaluations “strongly agreed” or “agreed” that a strong rationale was provided to explain the relevance of the training to their work (89.2% of the 56 teachers).
- Nearly all of the 56 teachers (96.4%) felt that the training content clearly built on their prior levels of knowledge/skills.
- 91% responded that the training helped them develop strategies to make instruction more relevant for diverse learners.
- Only a very small number (3 or less than 1%) disagreed that what they learned would significantly enhance the effectiveness of their work in their classroom.

A follow up evaluation sent to participants at a later date indicated that all those trained (100%) were implementing the strategies learned, see Figure 11.

**Figure 11**  
**Application of Knowledge and Skills Gained Through Training**



### Coaching

As of June 1, 2011, 28 WCPSS secondary schools had 14 literacy coaches, three of them funded through District Improvement. Several data sources suggest the desired coaching did occur in all of the targeted schools. Based on focus group responses from the literacy coaches, decisions on which teachers to work with was largely determined by who came to the literacy coach for assistance or by the school administration directing the coach to support particular teachers. Literacy coaches indicated they worked with the full faculty at their schools for at least part of their time. Beyond this, the type of teachers the coaches worked with varied considerably. The original model, in which English/Language Arts teachers would be targeted first, followed by other content areas, did not appear to be universally followed. Some coaches worked with many

teachers other than English teachers, such as Spanish, social studies, CTE, science, and mathematics. The school staff perception appeared to be that literacy activities were built into Language Arts and English curriculum but needed to be enhanced for their content areas. For example, one school requested the development of a literacy element for their content area. So far, teachers have participated on a voluntary basis. As one coach noted, “I work with people who want to work with me.” In this particular case, the coach did not feel strongly supported by the administration. Nearly all coaches indicated they worked with teachers both within PLTs and individually.

### **Types of Coaching Support Provided**

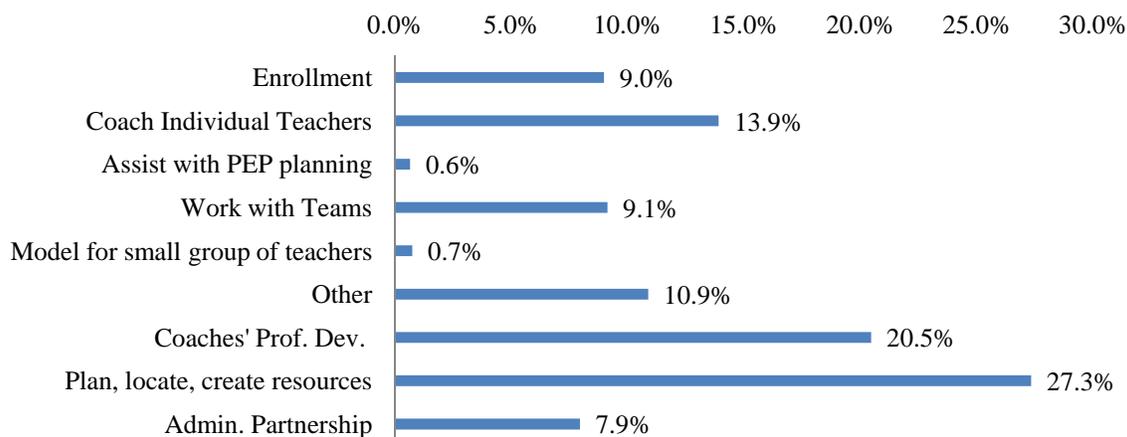
Data to address this question were derived from coaching logs, surveys of teachers in schools which had coaches, and focus groups with coaches.

**Coaching Logs:** All Secondary Literacy Coaches were required to keep a log of their daily activities. A new format was introduced in January 2011, which five coaches (some of them funded through District Improvement) kept as a pilot effort through May. The five coaches split their time between two middle schools and six high schools. Cumulatively, these five invested 2,159.5 hours in their roles as coaches during that time. Results are presented across the five coaches and then individually. While there were some commonalities across the coaches, patterns of time use varied considerably by coach.

As shown in Figure 12, trends across these coaches were as follows:

- Planning/locating/creating resources took the most time (27% of the hours recorded).
- Professional development for coaches was next (21% of the time). This likely reflects the newness of staff to these roles and will decline over time.
- Coaches spent 14% of their time (300 hours) in coaching individual teachers (pre-conference, model in class, co-teach, observe, and post-conference).
- The category of “Other” was the next most common (11% of the hours).
- Enrollment of teachers into the coaching process was next (at 200 hours or 9% of the hours).
- Collaborations through administrative partnerships with the intervention coordinator as well as administrators and team meetings (such as PLTs, grade level, and data team meetings) accounted for about 17% of the coaches’ time were the next most common (about 8% for the partnerships and 9% for team meetings).
- Coaches spent small amounts of time on school-wide staff development and assisting with PEPs.

**Figure 12**  
**Average Percentage of Coaches' Time across Four Months**

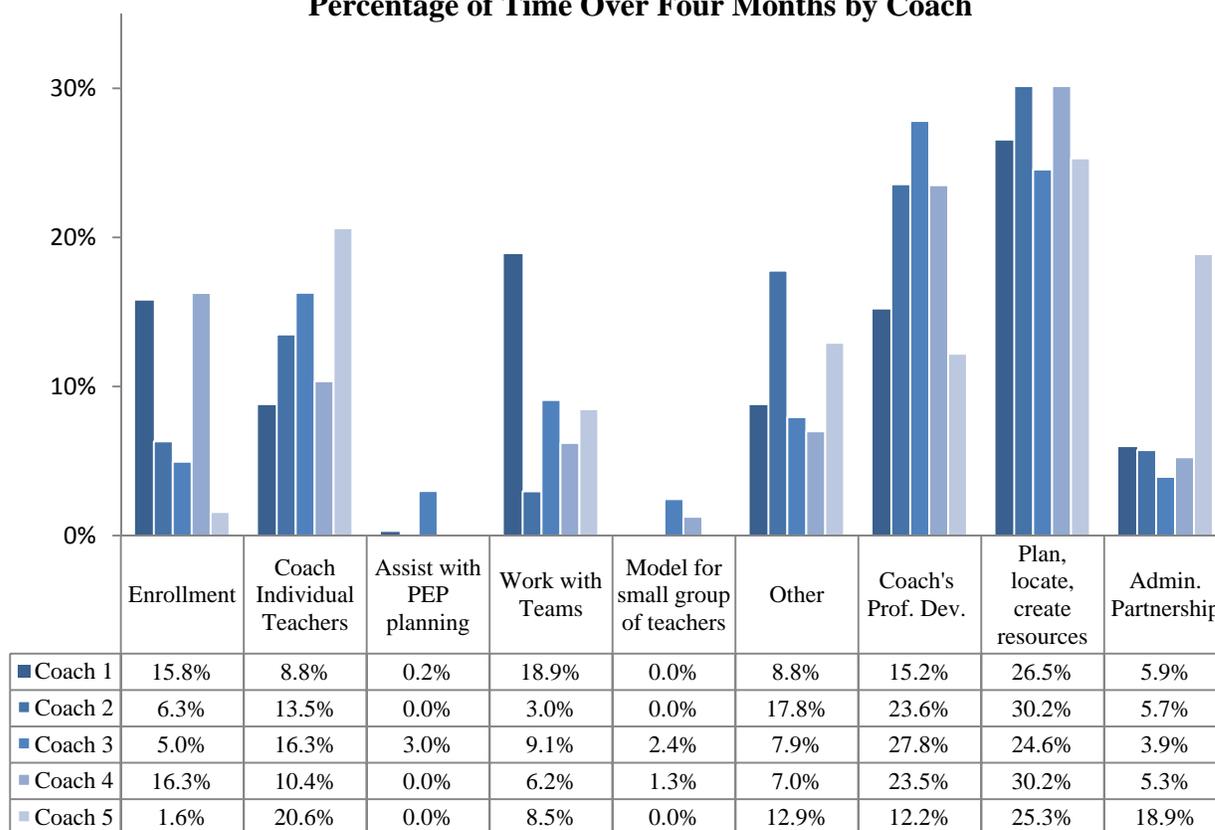


Note: Total time reflected is 2,159.5 hours.

Figure 13 shows the variability and commonalities in activities by coach. As stated earlier, school staffs were given guidelines about the role of the coach and possible activities, but had some latitude with how they were used within a school. The overall pattern of time use was fairly unique for each coach. The greatest common pattern was time spent on planning, locating, and creating resources for school staff. All coaches spent about one quarter of their time on these activities (24.6% to 30.2%). Within individual coaching time, differences were also small for pre-conference, modeling in class, and post-conferencing. Small differences were seen for assisting with Personal Education Plans (PEPs), providing school-wide staff development, and modeling for small groups of teachers. Time spent on some activities by coaches varied considerably:

- Two coaches (1 and 4) spent some time enrolling and engaging teachers in the coaching relationship (15-16%), while the others spent considerably less (with 1.6% for Coach 5 being the lowest).
- Coach 5 spent almost 21% (98 hours) of her time coaching individual teachers, more than the other coaches.
- Coach 1 spent 19% of her time working with teams, compared with 3% to 9% of the other coaches' time.
- Coaches 2, 3, and 4 spent more time on individual personal professional development (23.5 to 27.8%) than the other two coaches.

**Figure 13**  
**Percentage of Time Over Four Months by Coach**



Note: The figure scale was truncated for display purposes.

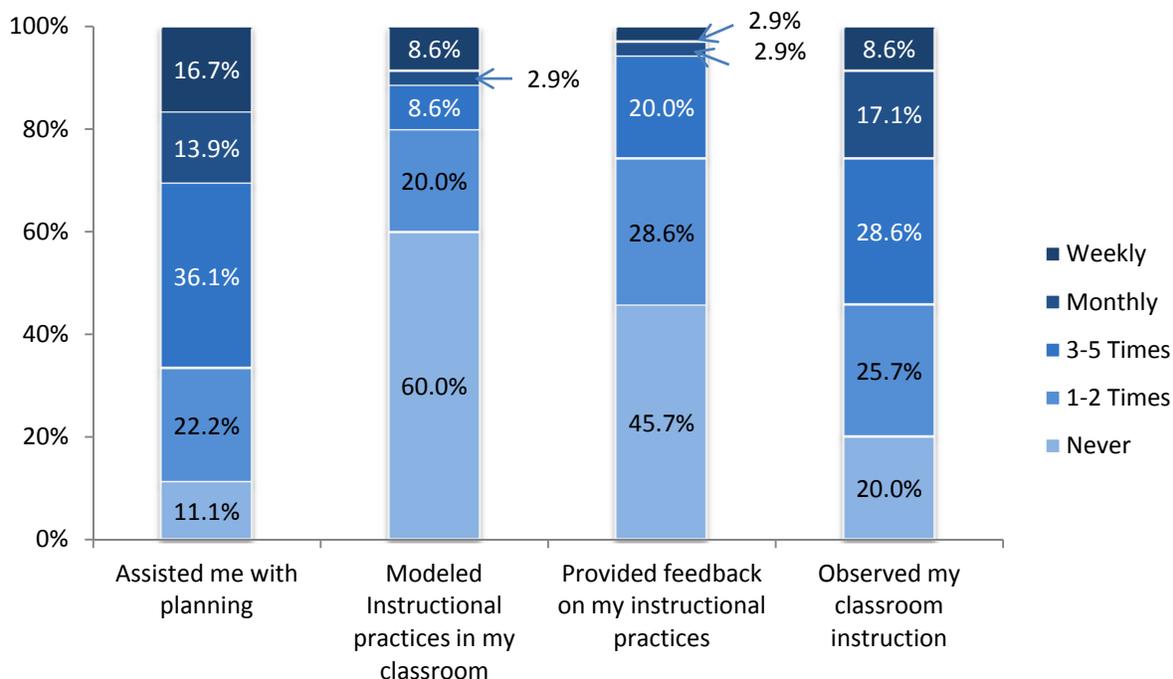
**Coaching Survey:** Consistent with the sample of coaching logs, teacher responses to the coaching survey suggest that literacy coaches most often provided support for planning, with observations and modeling occurring less frequently. Coaches indicated that the principal often directed them to provide more support of one type or another.

Teachers who responded to the coaching survey most commonly reported spending time with the literacy coach monthly (32%) or weekly (23%). Among all teachers, 16% indicated they had no support from the coaches.

As shown in Figure 14, teachers were assisted with planning most often, with 3-5 times being the most frequent response. The amount of planning support provided was distributed fairly normally across the times provided, with some teachers served weekly or monthly and some a few times or not at all. Observing in classrooms was also fairly common although less frequent (with 1-5 times being the most common responses). It is noteworthy, that feedback on the teachers' instructional strategies was provided less frequently than the observations occurred. About 25% of teachers observed were never given feedback. Modeling instructional practices in their classroom was the activity which occurred less frequently or never.

**Figure 14**  
**Secondary Literacy Coaching Activities 2010-11**

Q: Please indicate how often the secondary literacy coach has done each of the following during the 2010-11 school year.



The type of help provided by Literacy Coaches was also captured in an item with a longer list of supports.

- The most common supports were appropriate resources for instruction and analyzing data to plan and deliver instruction (47% of respondents each). As one example, a Literacy Coach mentioned in the focus group that one of her schools requested that she focus on using data to better identify students needing extra literacy support.
- About one-third of the teachers indicated that coaches modeled for a small group.
- Literacy Coaches infrequently assisted teachers with Personal Education Plans or co-teaching (11% each).

The setting of the support was most commonly PLT meetings (61%), literacy teams and grade level meetings (47%). Data teams were mentioned by one-third of the respondents in middle and high schools.

One specific question raised by staff in focus groups was the involvement of literacy coaches with the intervention coordinators at the high schools. When coaches were asked if they worked with the intervention coordinators at the high schools, most said they did to some extent; five said they had not worked with intervention coordinators at all. Much of the collaboration with the intervention coordinator at school was in providing assessment data to identify students in

need of extra help. Literacy coaches saw working with the intervention coordinators as “a work in progress.”

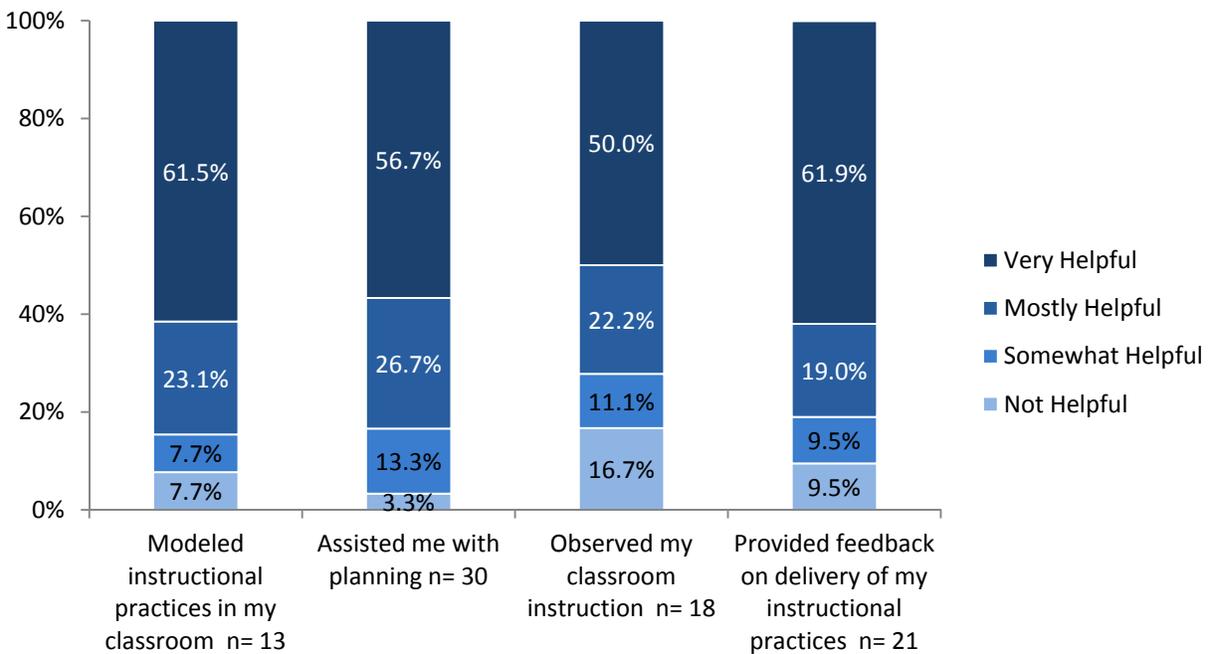
**Helpfulness of coaching**

For the most part, teachers reported the coaching support to be “very helpful” or “mostly helpful” (72% or more of the responses). Modeling instructional practices and providing feedback on delivery of instructional practices were most often seen as very helpful, see Figure 15.

**Figure 15**

**Helpfulness of Support from Coaches**

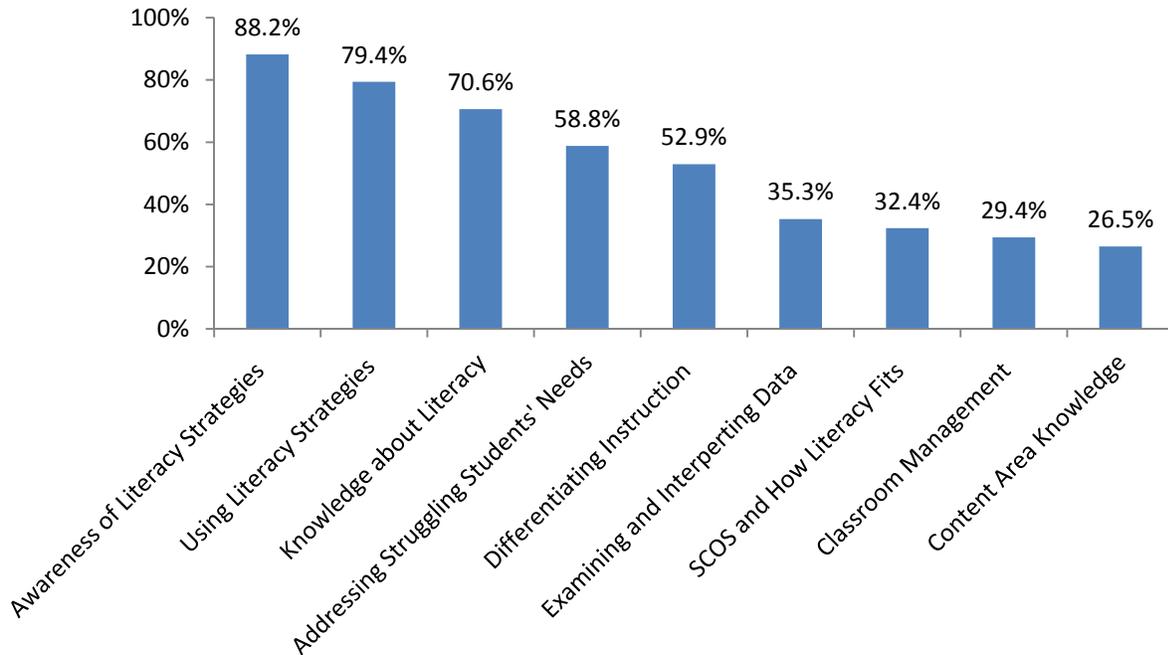
Q: Please indicate how helpful the secondary literacy coach has been when providing the following assistance to you during the 2010-11 school year.



In their survey responses, the majority of teachers reported that after they began working with the coach, their awareness, knowledge, and use of literacy strategies had increased. Additionally, over half of teachers had become better at addressing struggling students’ needs and differentiated instruction, see Figure 16.

**Figure 16**  
**Teachers’ Growth After Receiving Coaching**

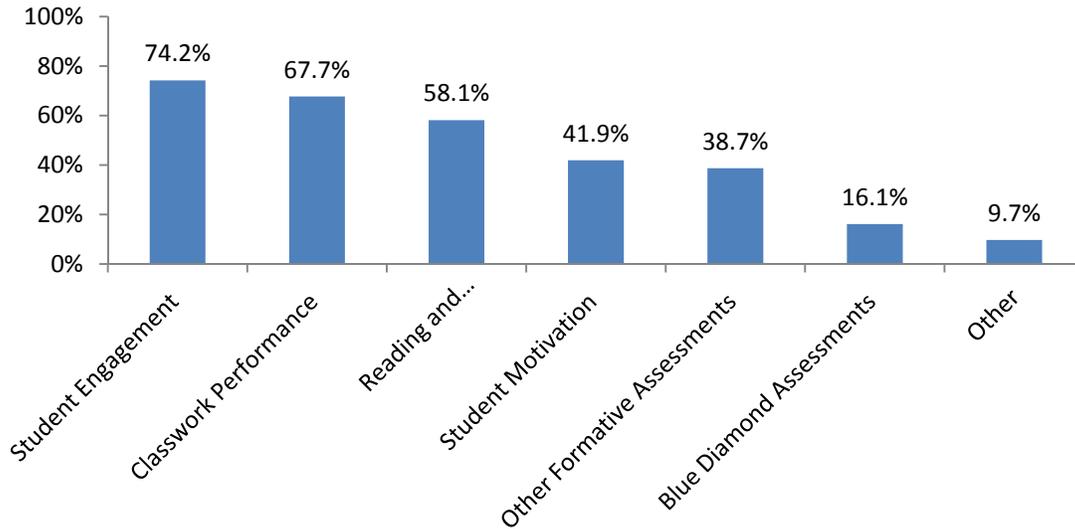
Since you have begun working with the Secondary Literacy Coach, in which areas have you seen growth?  
 (n=34)



**Coaching Effect on Student Growth**

Teacher perceptions collected in the survey were used to examine student growth. Student outcomes are addressed in the upcoming 2010-11 District Improvement impact report. On the survey, most teachers reported increased student engagement (74.2%), improved classroom performance (67.7%), and improved reading and comprehension (58.1%). Over one third of students reportedly showed growth in student motivation (41.9%) or improved results on formative assessments (38.7%). This data is summarized in Figure 17.

**Figure 17**  
**Student Growth After Teachers Receiving Coaching Support**  
 Since you have begun working with the Secondary Literacy Coach,  
 in which areas have you seen student growth?  
 n=31



3 respondents did not answer the question

When teachers were asked what percentage of their students benefited from the secondary literacy coaching support, nearly 73% indicated half or more of their students benefited. Teachers most frequently said 50-74% of students benefited from the coaching support (33% of teachers).

In the focus group, coaches discussed what worked well for teachers and students.

- In terms of what worked well, coaches mentioned sharing several critical ideas: that literacy goes beyond being able to read, that critical thinking is an important aspect of literacy, and that literacy instruction is cross-curricular.
- Other coaches mentioned that students noticed that coaches' modeling helped their teachers.
- One person each mentioned the intervention model for literacy, the spreading of the word that the literacy program was a success, the link of literacy to 21<sup>st</sup> Century learners, and the early release professional development for reading credit. One teacher said one sign of success for her work was a student asking, "Are you going to come back to my class tomorrow?"

Coaches also discussed challenges they face in their work:

- A few indicated that their principals did not know how to utilize them effectively (despite program guidance).

- A few also indicated that working across two schools can be cumbersome and inconvenient at times; teachers may have to wait for help depending on the coach's schedule.
- One person each mentioned other challenges: trying to get into all classrooms for intervention delivery, the limited time available to teachers to link up with coaches, the recursive and cyclical nature of the job (not linear), the slow nature of positive development in service delivery, helping teachers understand the difference between reading and understanding a text, and convincing teachers that literacy can be incorporated into any lesson and content area.

Many coaches believed that securing funding for the program beyond what is currently available would give them a chance to be more successful, as well as assigning one coach per school. At least two coaches mentioned that principals might have a better idea of coaching expectations if they were required to participate in the literacy coaching program and better understood their role in the literacy improvement process. Finally, one coach felt the focus of the literacy coaching program should be refined and narrowed in order to be more strategic and to measure impact more precisely.

### **Coach Activities to Support Systems and Structures around Literacy**

Coach activities to establish or support systems and structures related to literacy included developing processes for using reading assessments, planning for literacy interventions and identifying appropriate interventions, planning student vocabulary development, and designing professional development for reading/language arts teachers.

Coaches helped develop processes for using screening assessments for reading. For example, a process was set up to assess students in a reading competency class in four high schools. Most appropriate interventions then were identified based on the assessment data and EOG scores, and students were grouped for interventions based on common needs.

A literacy coach helped special education teachers teaching curriculum assistance classes at her school to establish a procedure for pre-assessing students using CORE assessments to determine reading strategies for the curriculum assistance classes and establish flexible groups for these interventions. Special education teachers in curriculum assistance classes began to use CORE assessment data to write IEP goals for students.

Coaches helped develop and implement schedules for literacy intervention. At four high schools, the English I teachers in the school improvement team met weekly for planning, identifying goals and objectives, and discussing literacy strategies to help students meet those goals. Four high schools established a Literacy Task Force as part of the School Improvement Plan to identify literacy strategies to be taught in all content areas.

A process was set up for regularly sharing vocabulary strategies. Four high schools used assessments of students' vocabulary and put a vocabulary program in place to build students' vocabulary skills (for example, "Helping to implement silent sustained reading through homeroom at Southeast Raleigh High School").

Documents or procedures were developed to guide literacy discussions in all content areas (for example, a document “Guiding Questions for Team Leaders about Literacy Data and Interventions” or PLT monthly literacy discussions on how to incorporate literacy skills into the lessons).

An adolescent literacy course was developed for the district by a literacy coach using a combination of face-to-face and online instruction to provide a process for training content area teachers in adolescent literacy.

## **SECONDARY LITERACY INITIATIVE SUMMARY**

The secondary literacy initiative was designed to provide reading/language arts teachers, special education teachers, English as a Second Language teachers, and intervention teachers with literacy strategies that would increase percentages of students reaching growth targets. There were two approaches within the initiative: training of self-selected teachers and coaching of teachers in the schools with greatest needs for coaching support. The secondary coaches appeared to work in legitimate ways in secondary schools in WCPSS. However, finding qualified coaches willing to work on short-term contracts was difficult, so gaps in service have existed. The type of teachers and number of teachers being reached varied by school, and the numbers appeared to be quite small. Development of better systems to identify students for support appeared to be starting in some schools, but whether better systems and structures are in place is unclear at this point. Schools were provided a great deal of leeway with implementation, which led to variability; more consistency may be needed. Staff will have to make a concerted effort to be very strategic in outlining their strategies for 2011-12 if the goal of meeting Adequate Yearly Progress for targeted subgroups is to be met. Secondary literacy had five objectives. Three were fully met or exceeded, one was partially met, and one was not measurable because of missing data.

**Table 17**  
**Secondary Literacy Initiative Summary**

<b>Goals</b>	<b>Actual Implementation</b>	<b>Met/Not Met</b>
<b>Training:</b> 50 secondary teachers receive RIAL training and 50 receive Foundations training.	2010-11 training reached a total of 134 participants across sessions. RIAL had 104 participants; Foundations had 30 participants.	RIAL: Exceeded Foundations: Did not meet
3 sessions of RIAL and 1 session of Foundations of Reading are offered for general education, special education, and intervention teachers.	Four RIAL sessions were provided with 104 teachers attending. One session of Foundations of Reading was provided for 30 teachers.	Met
80% positive ratings of training initially and 70% on a 3-month follow-up survey.	89% to 96% of trained teachers gave positive ratings to the training.	Exceeded
50% or more of trained teachers are implementing strategies based on a follow-up survey three months later.	100% of teachers indicated they used literacy strategies learned in training.	Exceeded
<b>Students:</b> A 2% increase in reading proficiency of students of middle and high school teachers who participated in the training.	Teachers reported improved student engagement (74%), classroom performance (68%), reading and reading comprehension skills (58%). Student rosters for trained teachers were not available to measure reading proficiency.	Not measurable as stated
<b>Goals</b>	<b>Actual Implementation</b>	<b>Met/Not Met</b>
<b>Coaching:</b> District Improvement funded literacy coaches continue to provide support to English/Language Arts teachers at 12 schools.	Two coaches provided coaching support in two schools each and one coach supported four East Wake High Schools. The coaching time was mostly spent on supporting planning, locating or creating resources, coaches' professional development, coaching individual teachers, and engaging teachers into the coaching process.	Partially Met (8 schools)  Vacancies prevented all 12 schools from being served.
<b>Teachers:</b> Increased awareness and application of a wide range of reading strategies provided by coaches and by professional development; improved use of formative reading assessment tools.	79% to 88% of teachers reported awareness and use of literacy strategies; 59% reported increased ability to address struggling students' needs; 35% reported increased ability to examine and interpret student achievement data.	Met
<b>Schools:</b> Systems and structures developed to improve reading screening in schools with coaches.	Coaches helped set up processes for using literacy screening assessments, developed literacy-related documents, schedules for literacy interventions, and designed literacy training for the district.	Met

## CONCLUSIONS

Concerted efforts were made to target the student subgroups in need and AYP subject areas. In 2010-11, SIOP<sup>®</sup> was well established. Secondary mathematics and literacy initiatives were in their first full year of implementation. All efforts targeted schools and subjects which included high numbers of students from the subgroups in need. Generally, implementation was found to be appropriate, with some areas for improvement.

SIOP<sup>®</sup> training in the strategies that enhance instruction was provided to almost 1,000 teachers in 2010-11. With those trained in the previous three years, over 2,600 teachers in the district were SIOP<sup>®</sup> trained by the end of 2010-11. In addition to face-to face training, an online training option was made available, and other technology uses were reported, such as publication of a monthly SIOP<sup>®</sup> bulletin. A large majority of teachers in nine targeted schools received coaching support to follow up the training. Implementation of SIOP<sup>®</sup> components in the schools that had SIOP<sup>®</sup> coaches for three years was high: a least 70% of teachers implemented four to six SIOP<sup>®</sup> components at above average levels at the time of observation. Additionally, to support lesson planning and offer SIOP<sup>®</sup> strategies to all teachers, over 1,000 existing lessons in elementary, middle, and high school language arts and mathematics were enriched with SIOP<sup>®</sup> strategies. Thus, implementation of SIOP<sup>®</sup> appeared to be strong in 2010-11, with student outcomes discussion to follow. (The outcomes will be reported in the District Improvement impact report which is due out shortly.)

In 2010-11, the secondary mathematics initiative included only a training component. Training was provided to 184 teachers, close to the goal of 200. Training was rated high in quality; over half of the teachers reported implementing the strategies. In the classrooms of teachers who used the strategies, student engagement in the learning processes somewhat increased and student understanding of mathematics concepts somewhat improved. Implementation details on one of the training workshops were also provided through a survey and showed uneven application of the modules. Thus, results suggest teachers implemented some of what they learned in training, but improvement is desirable in terms of full and consistent implementation.

The quality of the secondary literacy initiative services (training and coaching) appeared to be strong in 2010-11, but the number of teachers impacted was small and varied across campuses. The secondary coaches appeared to work in legitimate ways in secondary schools. Schools were provided a great deal of leeway with implementation, so the degree of variability in services provided across campuses was considerable. Development of systems and structures to identify students for literacy support and literacy-related interventions appeared to be starting in schools with coaches. Thus, secondary literacy supports were established in the intended schools by spring 2011, but there is room for improvement in terms of consistency of activities across schools and the number of teachers impacted.

For all three initiatives, it was difficult to find qualified staff who were willing to work on end-dated positions. This, in turn, slowed the hiring process and impacted service levels possible to schools.

## RECOMMENDATIONS

Despite considerable efforts, new, higher AYP proficiency targets in all grade levels and subject areas were not met in 2010-11. The district continues to be in District Improvement in mathematics. The AYP student subgroups that are in the district's focus and are in need of support are LEP students, students with disabilities, Black students, and economically disadvantaged students. This is in line with our strategic plans to close achievement gaps. Staff will have to make a concerted effort to be very intentional in outlining their strategies for 2011-12 if the goal of meeting Adequate Yearly Progress for targeted subgroups is to be met.

The state of North Carolina has requested a waiver from key elements of the No Child Left Behind law, including the 100% proficiency goal for 2013-14. Components' continuation will be optional if the waiver is secured. If the waiver is not granted, the district will still have flexibility in how to use these funds. Therefore, review of implementation and student outcomes are critical.

We recommend the following to improve implementation:

1. **Set strategic goals and systematically monitor implementation.** Coordinators and those who implement all District Improvement initiatives should determine their goals for the upcoming school year, develop ways to monitor their efforts throughout the year, and ensure that all data collection procedures are available to measure the implementation of each approach. For example, secondary mathematics could collect data through classroom observations to determine training implementation levels. When setting goals, the initiative coordinators should consider the number of schools and teachers to reach to make a difference in student outcomes (e.g., secondary literacy initiative). The goal should be to target intervention to teachers with the most students in NCLB groups in need of support (see AYP results in Appendix D). Observations suggest that SIOP<sup>®</sup> mastery is stronger in elementary schools than in middle schools. Thus, middle schools may need more SIOP<sup>®</sup> implementation support, especially in mathematics.
2. **Be intentional in all coaching efforts.** All initiatives with a coaching component should examine the effectiveness of the coaching support. Because coaching is an expensive type of professional development, a structured approach to each specific coaching initiative to enhance its effectiveness must be developed.

SIOP<sup>®</sup> was the first effort within District Improvement to provide training and coaching. Much was learned through trial and error that can be applied to newer coaching efforts. These "lessons learned" should be shared with the newer efforts to more efficiently plan, target, and deliver services. For example, examining the possibility of combining the school-wide training with a year-long follow-up coaching support in non-targeted schools to enhance implementation could be recommended.

A training/coaching model can be very effective, but monitoring of coaching coverage and teacher implementation of strategies must be part of the process. With fidelity of implementation, student achievement improvements are more likely to occur.

3. **Build ownership and commitment at the school level.** To address inconsistent implementation, key district leaders could meet with school administrators and clearly convey the importance of District Improvement efforts to school principals, so that they are aware of the significance of selection of teachers for training and the importance of consistent implementation of key training strategies. School administrators should support their teachers in taking advantage of the training opportunities (secondary mathematics) and ensure that AYP groups of students (Black, economically disadvantaged, limited English proficient students, and students with special needs) are targeted in the application of the new instructional skills.
  
4. **Coordinate the new efforts with existing efforts to optimize their effectiveness.** In 2010-11, several new initiatives were funded through District Improvement, including supporting students with disabilities, providing elementary mathematics instruction, providing curriculum alignment training to curriculum writers, and supporting teachers in their differentiation efforts. Setting goals for 2011-12 and implementation of strategies and activities for all new initiatives should take place in coordination with the existing approaches (SIOP<sup>®</sup>), to take advantage of the procedures that help focus the efforts.

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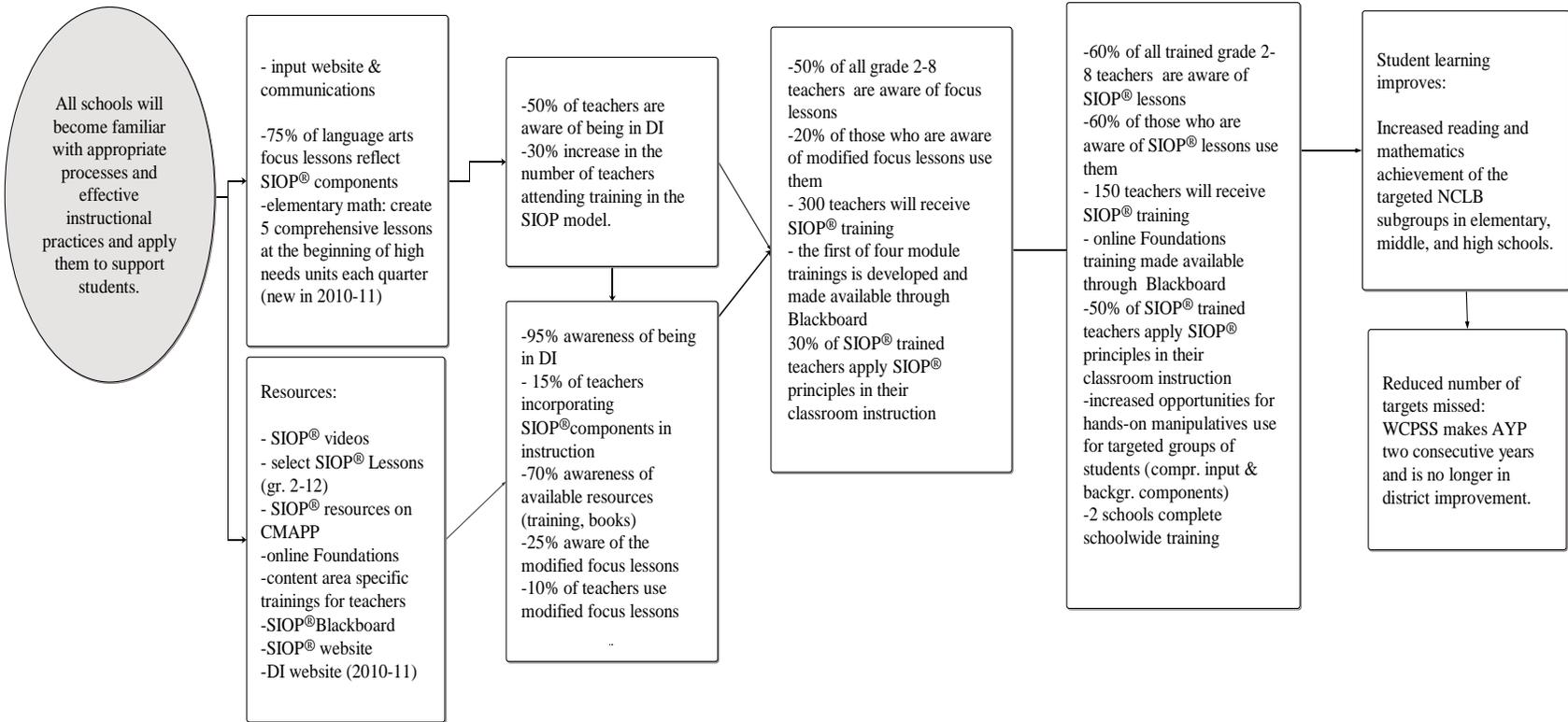
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### APPENDIX A1 SIOP® Logic Models

District Improvement Logic Model for SIOP Non-Targeted Schools

Need: Students in targeted subgroups are more likely to perform below grade level or to not graduate from high school, and should be offered additional assistance. Because systematic structures for intervention are still evolving, there is concern that some students within these subgroups may not receive the needed support.

PROGRAM GOALS	ACTIVITIES/ RESOURCES	2007-09 SHORT- TERM GOALS	2009-2010 INTERMEDIATE GOALS	2010-2011 INTERMEDIATE GOALS	LONG-TERM GOALS 2011-13
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**APPENDIX A2**  
**SIOP® TRAINING**  
**SIOP® -Trained WCPSS Teachers by Year by School**

School	2007-08	2008-09	2009-10	2010-11	Total # Teachers Trained
Adams ES		50	4	12	66
Alston Ridge ES				2	2
Apex ES		5		2	7
Apex MS			1	2	3
Athens HS			3	2	5
Aversboro ES			2		2
Baileywick ES		16		2	18
Ballentine ES			13	9	22
Banks Rd. ES			1		1
Barwell Rd. ES		7	4	1	12
Baucom ES				1	1
Brassfield ES				1	1
<b>Brentwood ES**</b>	27	5	35	34	71
Brier Creek ES		1	1		2
Brooks ES			3	2	5
Broughton HS			3	1	4
Bugg ES		9	14		23
Carnage MS			1		1
Carpenter ES		9	3		12
Carver ES			1		1
Cary ES			1	1	2
Cary HS		30	4		34

School	2007-08	2008-09	2009-10	2010-11	Total # Teachers Trained
Cedar Fork ES				3	3
Centennial MS	0	2	1	62	69
<b>Combs ES*</b>	9	62	48	1	120
Conn ES		1		1	2
Creech ES				1	1
Daniels MS			2	79	79
Davis Dr ES		4			4
Davis Dr. MS		1	4		5
Dillard Dr ES		2	0	1	3
Dillard Dr. MS			2	1	3
Douglas ES				1	1
<b>Durant Rd ES**</b>	5	12	8	25	46
Durant Rd MS	9	14	1	10	34
E.Wake Arts & Globl				1	1
East Cary MS				5	5
East Garner ES	1		6	7	13
East Garner MS*	6	50	71	1	131
East Millbrook MS			1	8	9
East Wake Health Sci			1		1
<b>East Wake MS*</b>		10	60	11	75
Enloe HS				1	1

(continued)

**SIOP®-Trained WCPSS Teachers by Year by School**

School	2007-08	2008-09	2009-10	2010-11	Total # Teachers Trained
Farmington Wds. ES			2	1	3
Forest Pine ES			1	1	2
Forestville Rd ES		1			1
<b>Fox Road ES**</b>	9	12	64	63	105
Fuller ES		3			3
<b>Fuquay-Varina ES*</b>	6	10	7		23
Fuquay-Varina HS			1	1	2
Fuquay-Varina MS			2	1	3
Garner HS	7	7	5		19
Green ES		5	44	57	86
Green Hope ES		3	4		7
Green Hope HS			3	4	7
<b>Harris Creek ES*</b>	7	13	10	18	48
Herbert Akins Rd. ES			1		1
Heritage ES	9	10		3	22
Highcroft ES			1		1
Hilburn ES		8	2	1	11
Hodge Road ES		1	68	74	103
Holly Grove ES			2		2
Holly Grove MS				1	1
Holly Ridge ES				1	1
Holly Springs ES			1		1
Holly Springs HS		6		5	10
Holly Ridge MS		1			1
Hunter ES		1	3		4
Jeffreys Grove ES		1			1

School	2007-08	2008-09	2009-10	2010-11	Total # Teachers Trained
Joyner ES		1		1	2
Kingswood ES			52	38	90
Knightdale ES		7			7
Knightdale HS		3	4	3	10
Lacy ES			1	4	5
Laurel Park ES			6	6	11
Lead Mine ES		1		2	3
Leesville MS			6	1	7
Leesville ES			1	1	2
Leesville HS		1	2		2
Ligon MS		1	1	4	6
Lockhart ES				1	1
Longview HS			1		1
Lufkin Rd. MS			9	1	10
Lynn Road ES		2	3	5	10
Martin MS			3	3	6
Middle Creek ES		3	5	7	21
Middle Creek HS	14	6		1	15
Millbrook ES	7				7
Millbrook HS	7	5	3		15
Mills Park ES			2	5	7
Mills Park MS				1	1
Morrisville ES		4	1	1	6
Mt. Vernon MS			3	5	8
N. Forest Pines ES				1	1

\*Asterisk marks schools with three (\*) or more (\*\*) years of coaching

(continued)

**SIOP®-Trained WCPSS Teachers by Year by School**

School	2007-08	2008-09	2009-10	2010-11	Total # Teachers Trained
<b>North Garner MS*</b>	9	1	76	4	86
North Ridge ES		3	1		4
Northwoods ES				1	1
Oak Grove ES		1			1
Olive Chapel ES			2	1	3
Penny Road ES			2	2	4
Phillips HS				1	1
Pleasant Union ES				1	1
Poe ES		6	25	12	36
Rand Road ES		4	2		6
Reedy Creek ES			50		50
Reedy Creek MS				2	2
River Bend ES				1	1
River Oaks MS		1	1	1	3
Rolesville ES		6	2	1	9
Root ES				1	1
Salem ES		25	10	6	39
Salem MS			1	1	2
Sanderson HS		2	3	2	7
Sanford Creek ES			2	2	4
Smith ES		1		1	1
Southeast Raleigh HS	5			1	6
Stough ES		7	1	1	9
Swift Creek ES				2	2
Sycamore Creek ES	4	2	4	90	96
<b>Timber Drive ES**</b>	8	26	9	15	57

School	2007-08	2008-09	2009-10	2010-11	Total # Teachers Trained
Turner Creek ES		3	4	3	10
Underwood ES				48	48
Vance ES		10	2	5	17
Vandora Springs ES			4		4
<b>Wakefield ES*</b>	13	20	19		53
Wakefield HS		1			1
Wakefield MS				2	2
Wakelon ES			1	1	2
Weatherstone ES			1		1
Wendell ES			1	2	3
Wendell MS			3	64	63
<b>West Lake ES*</b>	12	22	7	1	42
West Lake MS			6	2	8
<b>West Millbrook MS**</b>	2	7	15	22	36
Wake Forest ES			5		5
WF-Rolesville HS			1		1
WF-Rolesville MS	16	5	4	3	18
<b>Wilburn ES**</b>	11		24	18	52
Wildwood Forest ES		1		1	2
Wiley ES			1		1
Willow Springs ES				2	2
Yates Mill ES		1		8	9
Zebulon ES		2		2	4
<b>Zebulon MS**</b>	3	13	48	41	94
<b>Grand Total</b>	<b>197</b>	<b>592</b>	<b>899</b>	<b>958</b>	<b>2,639</b>

\*Asterisk marks schools with three (\*) or more (\*\*) years of coaching support

**Number of Teachers Trained in Targeted Schools in 2010-11 and  
Across the Years**

<b>Schools</b>	<b>Years with SIOP<sup>®</sup> or Year Started in SIOP<sup>®</sup></b>	<b>Number Trained in 2010-11</b>	<b>Total Number Trained by 2011-12</b>
Brentwood Elementary	4	34	71
Durant Road Elementary	3	25	46
Fox Road Elementary	4	63	105
Hodge Road Elementary	2	74	103
Timber Drive Elementary	4	15	57
Wilburn Elementary	4	18	52
East Wake Middle	3	11	75
West Millbrook Middle	4	21	34
Zebulon Middle	4*	41	94
<b>Total</b>		<b>302</b>	<b>637</b>

The sample was chosen based on the size and performance of AYP subgroups.

Zebulon Middle was a SIOP<sup>®</sup> pilot school before the SIOP<sup>®</sup> implementation district-wide.

**Schools without District-wide SIOP<sup>®</sup> Training**

<b>School</b>
Briarcliff ES
Jones Dairy ES
Lake Myra ES
Lincoln Heights ES
Olds ES
Partnership ES
Washington ES
Walnut Creek ES
York ES
Carroll MS
Heritage MS
Moore Sq Museum MS
Apex HS
Heritage HS
Panther Creek HS
Wake Early College

**APPENDIX A3**

**ELEMENTARY SCHOOL TEACHER SURVEY RESPONSES**

**Number of SIOP<sup>®</sup> Coaching Survey Recipients  
in Targeted Elementary Schools**

Brentwood Elementary School	24
Durant Road Elementary School	45
Fox Road Elementary School	43
Hodge Road Elementary School	42
Timber Drive Elementary School	36
Wilburn Elementary School	33

**Elementary School Teachers Who Worked with a SIOP<sup>®</sup> Coach in Targeted Schools  
and Who Responded to the Survey**

<b>Schools with a SIOP<sup>®</sup> Coach</b>	<b># SIOP<sup>®</sup> Coached</b>	<b># Teachers Responding</b>
Brentwood Elementary	24	18
Durant Road Elementary	45	21
Fox Road Elementary	43	24
Hodge Road Elementary	42	25
Timber Drive Elementary	36	22
Wilburn Elementary	33	13
<b>Total</b>	<b>223</b>	<b>123</b>

**ELEMENTARY SCHOOL SIOP® COACHING SURVEY**

<b>11. Does your school have a SIOP® coach?</b>		
No	14	11.4%
Yes	109	88.6%
<b>Total</b>	<b>123</b>	<b>100.0%</b>

<b>12. Indicate how clear the responsibilities of the SIOP® coach are to you.</b>		
Very Clear	27	27.0%
Mostly Clear	36	36.0%
Somewhat Clear	22	22.0%
Not Clear	15	15.0%
<b>Total</b>	<b>100</b>	<b>100.0%</b>

<b>13. How often have you worked with the SIOP® coach at your school during the 2010-11 school year?</b>		
Weekly	10	9.2%
Monthly	36	33.0%
3-5 times	28	25.7%
1-2 times	17	15.6%
<b>Total</b>	<b>91</b>	<b>100.0%</b>

<b>14. Please indicate how often the SIOP<sup>®</sup> coach has done each of the following in the last year. (Select one response per row).</b>					
	Weekly	Monthly	3-5 Times	1-2 Times	Never
The coach has assisted me with planning.	1 1.1%	18 20.0%	23 25.6%	31 34.4%	17 18.9%
The coach modeled instructional practices in my classroom.	0 0.0%	11 12.4%	16 18.0%	20 22.5%	42 47.2%
The coach has observed my classroom Instruction.	2 2.3%	11 12.5%	16 18.2%	40 45.5%	19 21.6%
The coach has provided feedback on my instructional strategies.	1 1.1%	11 12.5%	15 17.0%	40 45.5%	21 23.9%

<b>15. Please indicate how helpful the SIOP<sup>®</sup> Coach was when providing the following assistance to you last year</b>					
	Very Helpful	Mostly Helpful	Somewhat Helpful	Not Helpful	Not Applicable
Assisting with planning	19 20.9%	23 25.3%	27 29.7%	6 6.6%	16 17.6%
Modeling instructional practices	14 15.4%	22 24.2%	20 22.0%	7 7.7%	28 30.8%
Providing feedback on the delivery of my instructional practices	18 19.8%	23 25.3%	22 24.2%	10 11.0%	18 19.8%

<b>16: I have worked with the SIOP<sup>®</sup> Coach in the following settings.</b>		
PLT Meetings	36	33.0%
Grade Level Meetings	56	51.4%
One-on-one	21	19.3%
Study Groups	46	42.2%
Other - Please specify	28	25.7%
Others Specified:		
As a resource	1	
Early Release professional development	2	
In committees	2	
Modeling in my classroom	2	
SIOP <sup>®</sup> /Staff development/Early release	20	
TAP Meetings	1	

<b>17: In which areas has the SIOP<sup>®</sup> Coach provided support?</b>		
Analyzing assessment data to plan and deliver instruction	33	30.3%
Providing appropriate resources for instruction	73	67.0%
Implementing instructional strategies to support student learning	60	55.0%
Implementing instructional strategies to support AYP student groups	33	30.3%
Other, please specify	13	11.9%
Others Specified:		
Creating SIOP <sup>®</sup> appropriate materials	2	
Differentiation strategies to use daily	1	
Going over SIOP <sup>®</sup> , language and objectives	1	
None	1	
Promoting the use of academic language in all subject areas	1	
Providing support for SIOP <sup>®</sup> for locating SIOP <sup>®</sup> activities	2	
Staff development/training	4	
Team teaching	1	

<b>18: Since you have begun working with the SIOP® Coach, in which areas have you seen growth? (Select all that apply).</b>		
My confidence as a teacher	24	22.0%
My content area knowledge	35	32.1%
My ability to use instructional strategies to support student learning	60	55.0%
My ability to use instructional strategies to support AYP subgroups	36	33.0%
My classroom management	14	12.8%
My job satisfaction	8	7.3%
My ability to use differentiation	43	39.4%
My ability to address the needs of struggling students across AYP subgroups	40	36.7%
Other, please specify	7	6.4%
Others Specified:		
Ability to incorporate language objectives into my instruction to help ensure that my high ESL/LEP population of students are effectively learning SCOS	1	
Ability to recognize when I need to clarify further or build additional background to what I had already planned.	1	
In classroom/modeling/team teaching	1	
None/unsure	3	
Strategies	1	

<b>19: Since you have begun working with the SIOP<sup>®</sup> Coach, in which areas have you seen growth in student achievement? (Select all that apply).</b>		
K-2 quarterly assessments	14	12.8%
Formative assessments	17	15.6%
Blue Diamond assessments	13	11.9%
EOG results	2	1.8%
Classwork performance	49	45.0%
Student engagement	54	49.5%
Student motivation	44	40.4%
Other, please specify	9	8.3%
<b>Others Specified:</b>		
Digging Deeper Assessments	1	
Growth in English proficiency/Language	2	
None/not enough to make a difference	4	
Students confidence and willingness to take risks in the classroom.	1	
Title 1 Assessments	1	

<b>20: What aspect of your work with the SIOP<sup>®</sup> Coach do you feel has been the most helpful?</b>		
Higher order thinking skills	4	8.3%
Teacher support/resources/feedback	23	47.9%
Student support	5	10.4%
Staff Development/Training /Best Practice	15	31.3%
None	1	2.1%

### **Coaches are Supportive and an Asset to Our School**

(The responses below are not limited to SIOP<sup>®</sup> coaches, but rather reflect teachers' perceptions of all coaches in the school.)

- Coaches are directly related to student success and teacher support.
- Coaches are wonderful - when they are the right person for the job!
- The SIOP<sup>®</sup> Coach position does not seem to be very effective-mainly because the teacher is very limited to the actual interaction with the students.
- Our SIOP<sup>®</sup> coach has been so helpful this year!
- I think coaches provide great support and can help you when you need it whenever it is.
- Having the support is great.
- My SIOP<sup>®</sup> coach has opened my eyes to a whole new aspect of learning language. It has really impacted me in the classroom and my students learning.
- Our SIOP<sup>®</sup> coach has been more helpful in the classroom for me for the coach has worked with K before and are comfortable with the curriculum
- I think the coach is very helpful.
- This is a vital part of our teaching experience and it makes being an effective teacher easier. My questions are addressed and I can implement with confidence.
- I think they are very helpful.

### **Dissatisfaction with Coaching Support**

(The responses below are not limited to SIOP<sup>®</sup> coaches, but rather reflect teachers' perceptions of all coaches in the school.)

- I have seen no visible need for it at my school. The assistance given other than the Literacy Coach is non-existent.
- I think we have too many coaches. They want to help, but it seems that it is just added stress and responsibility on teachers.
- We need to do away with ALL coaches and put more teachers in the classroom!
- The effectiveness of the coaching system depends A LOT on the person that is placed in that position. Some people are just unwilling to help, but very willing to assign more "busy work" to classroom teachers.
- The coaches do not generally interact with the Pre-K teachers, of which I am one.
- SIOP<sup>®</sup> is being used through TAP lessons.

**Suggestions Regarding Coaching Support**

(Note: The responses below are not limited to SIOP<sup>®</sup> coaches, but rather reflect teachers' perceptions of all coaches in the school.)

- I think that at the beginning of the year the coach's really need to inform teachers what specifically is their job. For example, how can you help us in the classroom? They should provide various examples of things that they do. I believe that our school some of the responsibilities of the coaches are unclear, and therefore teachers are unsure what they could do to help.
- Coaching can be a great help to teachers when the coaches make themselves available to help with the differentiation in our classes. They must be ready to actually help us implement the curriculum by not only providing the research based practices but helping us implement them in our classrooms on a daily basis.
- I wish that our coaches would observe us teaching and then provide feedback with supplemental supports for our areas of weakness.
- I would like coaches do provide more meaningful support to teachers and to help gather/organize resources and strategies for instruction.
- I would like to see coaches in all classrooms, not just the selected ones so that all teachers and students could benefit from their expertise.
- I'm not quite sure that we need coaches on a full time basis. I would rather have another program in which all students not just Title 1 could benefit. It also seems that when I would like to work with the coach she is tracked out, so I feel scheduling is also an issue.
- Our coach is very willing to help and works hard; however, I feel teachers get support from their PLT and BT's have mentors. I think funds spent on intervention and remediation specialist that work directly with small groups of at risk students would be much more beneficial and help close the gap. Or use the money to hire more classroom teachers that would reduce class size.
- At my school, the coaches wear many different 'hats' and I think it makes it difficult for them to provide the support they need to do both jobs; for example, our SIOP<sup>®</sup> coach is also our Math coach. She helped me a great deal with math-related things but not so much with SIOP<sup>®</sup>. I think these dual roles make it hard for them to do as well as they would like in both positions.
- It would be more beneficial if coaches could work with small groups of students. (5 comments).

**Middle School Coaching Survey**

**Teacher Feedback on Secondary SIOP® Coaches Support**

<b>1. Does your school have a SIOP® Coach?</b>	
Yes	8
No	0
<b>Total</b>	<b>8</b>

<b>2. Indicate how clear the responsibilities of the SIOP® Coach are to you.</b>	
<b>Very Clear</b>	3
Mostly Clear	4
Somewhat Clear	1
Not Clear	0
<b>Total</b>	<b>8</b>

<b>4. How often have you worked with the SIOP® Coach at your school during the 2010-11 school year?</b>	
Weekly	1
<b>Monthly</b>	4
3-5 times	3
1-2 times	0
<b>Total</b>	<b>8</b>

**5. Please indicate how often the SIOP® Coach has done each of the following during the 2010-11 school year.**

	Weekly	Monthly	3-5 times	1-2 times	Never
The coach has assisted me with planning.	0	2	1	4	1
The coach modeled instructional practices in my classroom.	0	1	1	3	3
The coach has observed my classroom instruction.	0	1	6	1	0
The coach has provided feedback on my instructional strategies.	0	1	7	0	0

**6. Please indicate how helpful the SIOP® Coach has been when providing the following assistance to you during the 2010-11 school year.**

	Very Helpful	Mostly Helpful	Somewhat Helpful	No Response
The coach has assisted me with planning.	3	2	0	3
The coach has modeled instructional practices in my classroom.	3	0	2	3
The coach has observed my classroom instruction.	0	4	4	0
The coach has provided feedback on delivery of my instructional practices.	0	4	4	0

<b>7. The SIOP® Coach has worked with or helped me in the following situations.</b>	
PLT meetings	7
Providing appropriate resources for instruction	5
Grade level meetings	5
Modeling for a small group	5
Analyzing data to plan and deliver instruction	4
Co-Teaching	3
Literacy Team Meeting	3
Data Team Meeting	3
Assisting with PEP	0
Other, please specify	0

<b>8. Please indicate how helpful the SIOP® Coach was when working with you in the following situations.</b>				
	<b>Very Helpful</b>	<b>Mostly Helpful</b>	<b>Somewhat Helpful</b>	<b>No Response</b>
Grade level meetings	3	4	0	1
PLT meetings	3	4	0	1
Analyzing data to plan and deliver instruction	2	3	0	3
Providing appropriate resources for instruction	3	3	0	2
Assisting with PEP	0	0	3	3
Data Team Meeting	2	1	1	4
Literacy Team Meeting	2	1	1	4
Co-Teaching	3	2	1	2
Modeling for a small group	1	0	1	2
Other (as specified in the question above)	0	1	0	7

<b>9. Since you have begun working with the SIOP<sup>®</sup> Coach, in which areas have you seen growth?</b>	
My ability to use literacy strategies in my classroom	6
My awareness of instructional strategies	6
My ability to differentiate instruction based on the literacy needs of my students	4
My ability to address the needs of struggling students across AYP subgroups	4
Classroom management	3
My ability to examine and interpret data	3
Increased job satisfaction	3
My understanding of the SCOS and how literacy fits into the SCOS	2
My content area knowledge	1
My knowledge about my content area	1

<b>10. Since you have begun working with the SIOP<sup>®</sup> Coach, in which areas have you seen student growth? (Check all that apply)</b>	
Student engagement	8
Class work performance	7
Reading and comprehension skills during class participation	5
Other formative assessments	5
Student motivation	5
Blue Diamond assessments	3
Other, please specify	0

<b>11. Since you have begun working with the SIOP<sup>®</sup> Coach, approximately what percentage of your students do you feel have benefited from the SIOP<sup>®</sup> Coach's support?</b>	
85-100%	1
75-84%	1
50-74%	5
25-49%	1
Less than 25%	0
Total	8

**12. What aspect of the your work with the SIOP<sup>®</sup> Coach do you do you feel has been the most helpful?**

- Planning a lesson which incorporates the strategies that we are taught through our SIOP<sup>®</sup> coach
- Developing hands-on activities to learn vocabulary words for my students
- Giving me ideas and resources to use in class to help students make connections with difficult vocabulary, and a fresh perspective.

## APPENDIX A4

### Teacher Feedback on SIOP® Lessons

- The lessons in CMAPP have been very helpful in planning. Gives me more time to [find]"creative" ways to get ALL students to learn.
- I would love to see SIOPed lessons in Second Grade mathematics! We use manipulatives, but sometimes our vocabulary can get lost in the methods and algorithms. Also, how can we manipulate higher order thinking questions, but for our language children?
- Great for my Guided Reading lessons in 4th and 5th Grade!
- Yes, the SIOP® lessons help, especially with being more specific on objectives and activities used in the classroom.
- The lessons are very helpful, although some are lengthy. We have been able to shorten or incorporate some components of the longer lessons into guided reading lessons. Having the language objectives written out helps guide instruction and save time!
- Some lessons that say they are SIOPed are just the original lesson with some parts bolded and some parts in italics. If the lessons were truly SIOPed, the lessons would be rewritten to address language used in the lessons. Also, handouts/transparencies should be more grade level specific with language that easier to understand.
- SIOP® Rocks! Thanks for making it easier on us to incorporate the much-needed SIOP® components by including the strategies in CMAPP.
- The lessons are extremely useful, but there is no rhyme or reason to what lessons will have "SIOPed" lessons to accompany them. A more reliable schedule would be appreciated!
- They have been useful. I like the more broke down vocabulary that it is provided along with the definitions so that you are all teaching the same definitions and you are also teaching it in the wording that will be found on the state tests.
- Yes, they have given me some good ideas, and examples.
- they make it easy to follow and are a great resource
- SIOP® is closely connected to the TAP instructional rubric expectations.
- I am still a little confused about using the lessons. I have been told that I can use the SIOP® lessons for my entire reading lesson and I have also been told that it can only be used for a 10 minute introduction.
- The lesson plans have been useful for the most part but some of the required materials are not available (i.e., some of the texts)
- They are a great resource, but I also create my SIOP® lessons!
- I like that they already have content and language objectives that I can use.
- They are more hands-on and kid-friendly that the non-SIOPed lessons.
- They give me the exact language that I can use with students.
- I always print them out and keep them in my lesson plan book to reference.
- I wish there were more of the SIOPed lessons.
- I like them better than the ones that aren't SIOPed, and they're more effective with my students.
- I get excited when I see that an upcoming lesson has been SIOPed.

- In SIOPed lessons, there's more there for me to work with. Other lessons are "bare bones" lessons that I have to do a lot more "to jazz them up".
- I especially like when they provide sentence starters.
- A 3<sup>rd</sup> grade team was recently planning out Quarter 4 Reading Lessons. When they talked about advertising techniques, the team immediately recalled SIOPed Focus lesson that had worked well for them in the past that they would want to use again to teach the objective.
- I wish there was a way to search SIOP<sup>®</sup> lessons on CMAPP.
- I wish that SIOP<sup>®</sup> activities were suggested on CMAPP. I've had training in SIOP<sup>®</sup> and know a lot of activities, but I don't always think about using them. What if there was a list of possible activities to use with students right there in C-MAPP?

**APPENDIX A5**

**SIOP® OBSERVATION RESULTS**

**Observation Results by School**

<b>School</b>	<b>Number of Observed Classrooms</b>
Brentwood Elementary	10
Combs Elementary	7
Durant Road Elementary	11
East Garner Middle	11
East Wake Middle	16
Fox Road Elementary	13
Fuquay-Varina Elementary	7
Harris Creek Elementary	8
North Garner Middle	17
Timber Drive Elementary	10
West Millbrook Middle	14
Wakefield Elementary	8
Westlake Elementary	14
Wilburn Elementary	10
Zebulon Middle	15
<b>Total</b>	<b>171</b>

**Number of Observation by Grade**

<b>Grade</b>	<b>Number of Classrooms</b>
K	13
1	7
2	8
3	16
4	22
5	33
6	20
7	32
8	19

**Number of Observations by Subject Area at Elementary and Middle School Levels**

Subject Area	Elementary	Middle	Total Number of Classrooms
Mathematics	35	23	58
Language Arts	42	19	61
Science	12	14	26
Social Studies	0	11	11
ESL/Title I /CCR	9	5	14

**Implementation Ratings for Elementary and Middle Schools**

Rating Groups	Elementary	Middle	Rating Total
4-5.00	21 21.6%	9 12.3%	30 17.6%
3-3.99	58 59.8%	32 43.8%	90 52.9%
2.-2.99	16 16.5%	31 42.5%	47 27.6%
1-1.99	2 2.1%	1 1.4%	3 1.8%
<b>Level Total</b>	<b>97 100%</b>	<b>73 100%</b>	<b>170 100%</b>

**Ratings of Implementation of SIOP® Components**

SIOP® Components	Mean Ratings
Lesson Preparation	3.4
Building Background	3.0
Comprehensible Input	3.6
Strategies	3.0
Interaction	3.4
Practice & Application	3.3
Lesson Delivery	3.9
Review and Assessment	3.4

**SIOP® Component Mastery by School Level and Subject Area**

SIOP® Components	Elementary			Middle		
	Mathematics N=35	Language Arts N=42	Other N=21	Mathematics N=23	Language Arts N=19	Other N=30
Lesson Preparation	16 45.7%	20 47.6%	12 57.1%	4 17.4%	5 26.3%	12 40.0%
Comprehensible Input	16 45.7%	9 21.4%	9 42.9%	2 8.7%	1 5.3%	9 30.0%
Strategies	12 34.3%	15 35.7%	4 19.0%	6 26.1%	4 21.1%	9 30.0%
Interaction	22 <b>62.9%</b>	30 <b>71.4%</b>	14 <b>66.7%</b>	6 26.1%	4 21.1%	11 36.7%
Practice & Application	15 42.9%	18 42.9%	10 47.6%	5 21.7%	6 31.6%	12 40.0%
Lesson Delivery	28 <b>80.0%</b>	35 <b>83.3%</b>	16 <b>76.2%</b>	12 <b>52.2%</b>	12 <b>63.2%</b>	15 <b>50.0%</b>
Review and Assessment	12 34.3%	19 45.2%	15 <b>71.4%</b>	12 <b>52.2%</b>	7 36.8%	13 <b>43.3%</b>
Number and percent of mastery of four or more SIOP® components	<b>20 57.1%</b>	<b>22 52.4%</b>	<b>10 47.6%</b>	<b>4 17.4%</b>	<b>5 26.3%</b>	<b>11 36.6%</b>

**Comparisons of Average Ratings by SIOP® Indicators for WCPSS and Comparison District**

<b>SIOP® Component</b>	<b>SIOP® Indicators</b>	<b>WCPSS Mean Rating</b>	<b>Comparison District Mean Rating</b>
<b>Lesson Preparation</b>	1. Clearly defined content objectives for students.	3.73	3.90
	2. Clearly defined language objectives for students.	2.39	2.60
	3. Content concepts appropriate for age and educational background of students.	4.67*	4.03
	4. Supplementary materials used to a high degree, making a lesson clear and meaningful (graphs, models, visuals).	2.79	2.80
	6. Meaningful activities that integrate lesson concepts (e.g., surveys, letter writing, simulations, constructing models) with language practice opportunities for reading, writing, listening, and/or speaking).	3.53	3.17
<b>Building Background</b>	8. Links explicitly made between past learning and new concepts.	3.05*	2.52
	9. Key vocabulary emphasized (e.g., introduced, written, repeated and highlighted for students to see).	2.98	2.71
<b>Comprehensible Input</b>	10. Speech appropriate for students’ proficiency level (e.g., slower rate, enunciation, and simple sentence structure for beginners).	3.93*	3.28
	11. Explanation of academic tasks clear.	3.73	3.66
	12. Uses a variety of techniques to make content concepts clear (e.g., modeling, visuals, hands-on activities, demonstrations, gestures, body language).	3.02	3.14
<b>Strategies</b>	13. Provides ample opportunities for students to use strategies.	2.85	3.14
	14. Consistent use of scaffolding techniques throughout lesson, assisting and supporting students understanding such as think-alouds.	2.94	2.86

\*Asterisk marks a significant difference.

(continued)

<b>Strategies</b> (cont'd)	15. Teacher uses a variety of question types throughout the lesson, including those that promote high-order thinking skills (e.g., literal, analytical, and interpretive questions).	3.11*	2.48
<b>Interaction</b>	16. Frequent opportunities for interaction and discussions between teacher/students and among students, which encourage elaborated responses about lesson concepts.	3.42	3.28
	17. Grouping configurations support content and language objectives of the lesson.	2.96	2.62
	18. Consistently provides sufficient wait time for student response.	3.88*	3.04
<b>Practice/Application</b>	20. Provides hands-on materials and/or manipulatives for students to practice using new content knowledge.	2.28	2.77
	21. Provides activities for students to apply content and language knowledge in the classroom.	3.20*	3.80
	22. Uses activities that integrate all language skills (i.e., reading, writing, listening, and speaking).	3.77*	3.10
<b>Lesson Delivery</b>	23. Content objectives clearly supported by lesson delivery.	4.14*	3.57
	24. Language objectives clearly supported by lesson delivery.	2.36	2.13
	25. Students engaged approximately 90-100% of the time.	3.96	3.87
	26. Pacing of the lesson appropriate to the students' ability level.	3.93	3.53
<b>Review &amp; Assessment</b>	27. Comprehensive review of key vocabulary.	2.85*	1.57
	29. Regularly provides feedback to students on their output (e.g., language, content, work).	3.77	3.73
	30. Conducts assessment of student comprehension and learning of all lesson objectives (e.g., spot checking, group response) during the lesson.	3.55	3.27

\*Asterisk marks a significant difference between the means.

**APPENDIX B1**

**District Improvement Logic Model for Secondary Mathematics**

**Need:** Teachers of students who perform below grade level (especially Black, Hispanic, and SWD members of NCLB subgroups who did not meet AYP targets) in courses leading up to and including Algebra 1, need additional support in the form of professional development to enhance their instruction.

**Goal:** All Algebra I teachers and mathematics teachers in grades 6-8 will become familiar with appropriate processes and effective practices and apply them to support students.

**OUTCOMES EXPECTED**

Strategies	Year 1 (training): 2009-10	Year 2 (implementation): 2010-11	Year 3 (outcomes): 2011-12	Year 4: 2012-13
<p><b>(Cohorts 1 &amp; 2)</b> Training of self-selected teachers of mathematics in use of research-based, student-focused strategies and activities, technology, and differentiation (March-May after school and in summer.)</p> <p>House training resources on Blackboard</p> <p>Develop film clips of training sessions.</p>	<p><b>2009-10</b> Train 100-150 teachers (cohort 1).  <b>Expected teacher outcomes:</b> Positive follow-up ratings of training by 80% of teachers.</p> <p>25-30% teachers demonstrate strategies highlighted in training in their lesson planning and delivery.</p>	<p><b>2010-11</b> Train 200 additional teachers (on the same topics) (cohort 2).  <b>Expected teacher outcomes:</b> A total of 300-350 teachers are trained. (cohort 1 and 2)</p> <p>*50% of trained teachers apply training strategies and activities in their instruction (cohort 1).</p> <p>*50-60% of teachers apply research-based, student-focused activities such as conversations, math talk, and use of manipulatives in their instruction. (cohort 1)</p> <p>*enhanced student engagement and increased understanding of mathematics concepts</p>	<p><b>Teachers:</b> 75% of trained teachers are implementing strategies from training (cohort 1 and 2).</p> <p><b>Student outcomes:</b> 3-5% increase in Algebra I proficiency and mathematics achievement for students of teachers who attended professional development: (2011-12); Increase by 3-5% in the proportion of students reaching ABC growth targets</p> <p><b>District:</b> Fewer AYP targets missed.</p>	<p><b>Students:</b> Enhanced EOC /EOG scores for students of teachers who attended professional development (3-5% increase in mathematics achievement).</p> <p><b>District:</b> Fewer AYP targets missed.</p>

(continued)

**District Improvement Logic Model for Secondary Mathematics (continued)**

<p><b>Coaching</b> support by math coaches to middle and high schools with high numbers of targeted subgroups who are performing below grade level (2011-12)</p>			<p><b>Teacher Implementation:</b> 75% of teachers who received coaching support incorporate student-focused strategies in each lesson, emphasize use of higher order thinking skills, use differentiation, improve own use of technology (calculators, SMART boards, document cameras, computer software, etc.) and involve students in use of technology (cohort 2)</p> <p><b>Student outcomes:</b> Students of teachers who received regular coaching support show improved grades, improved Blue Diamond results, and enhanced growth and proficiency on EOG/EOC.</p>	<p><b>Teachers:</b> 90% of trained teachers who received regular coaching support are implementing strategies from coaching in their daily lesson planning and delivery.</p> <p><b>Students:</b> improved growth and proficiency on EOG/EOC (3-5% increase in mathematics achievement).</p> <p><b>District:</b> Fewer AYP targets missed in mathematics.</p>
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## APPENDIX B2

## Feedback for 2009-10 and 2010-11 Training Received through e-Schools

<b>Foundational Algebraic Concept 2009-10</b>	<b>Percent Agree/Strongly Agree</b>
The training content was clearly aligned with the North Carolina Standard Course of Study, context standards for professional development and clearly supported the attainment of the District goals.	95%
The facilitator referenced scientifically-based research and best practices.	95%
The training session content built on participants' prior experience or knowledge.	90%
The training content addressed the specific subject area, content knowledge, or instructional practices.	90%
Time was provided to reflect on the connection between the new skills/knowledge received in training and their application in the classroom.	95%

<b>Technology Training 2010-11</b>	<b>Percent Agree/Strongly Agree</b>
The training/learning objectives were clearly identified in a structured agenda. (To remove the items that are italicized? Not vital?)	96%
The training/learning objectives clearly matched the course description in eSchools.	100%
A strong rationale was provided that explained the relevance of this training to my job.	100%
The facilitator clearly connected the course content to current research/relevant data sources.	96%
The training content clearly built on my prior level of knowledge /skills.	93%
The training helped me develop strategies to make instruction more relevant for diverse learners.	89%
The facilitator gave me adequate time to collaborate with the others.	93%
The facilitator gave me adequate time to reflect on how I will use this learning in my classroom.	85%
The facilitator created a respectful and inclusive environment for my learning.	96%
If I implement what I learned in this training, it will significantly enhance the effectiveness of my work in my classroom.	89%

<b>Differentiation Training 2010-11</b>	<b>Percent Agree/Strongly Agree</b>
The training/learning objectives were clearly identified in a structured agenda. (to remove the items that are italicized?)	100%
The training/learning objectives clearly matched the course description in eSchools.	100%
A strong rationale was provided that explained the relevance of this training to my job.	100%
The facilitator clearly connected the course content to current research/relevant data sources.	100%
The training content clearly built on my prior level of knowledge /skills.	100%
The training helped me develop strategies to make instruction more relevant for diverse learners.	94%
The facilitator gave me adequate time to collaborate with the others.	98%
The facilitator gave me adequate time to reflect on how I will use this learning in my classroom.	100%
The facilitator created a respectful and inclusive environment for my learning.	100%
If I implement what I learned in this training, it will significantly enhance the effectiveness of my work in my classroom.	100%
I have applied the knowledge and skills that I have learned in the training in my classroom.*	94%*
The knowledge and skills I gained from this training have made a positive difference in the effectiveness of my work.	97%*

\*One teacher has not yet returned to work at the time of giving feedback.

**APPENDIX B3**

**Algebra I Concepts Training Follow-Up Survey**

<b>1. Module 2: Proportional Reasoning</b>					
	<b>Very Effective</b>	<b>Mostly Effective</b>	<b>Somewhat Effective</b>	<b>Not Effective</b>	<b>Did Not Use</b>
Measuring Cup	0 0%	3 14%	3 14%	0 0%	15 <b>71%</b>
Calculate Using Benchmark Percents (100%, 50%, 25%, 1%)	3 14%	4 <b>19%</b>	3 14%	1 5%	10 <b>48%</b>
Paperclip Chains	1 5%	1 5%	4 <b>19%</b>	0 0%	15 71%
Coffee Problems	1 5%	1 5%	5 <b>24%</b>	0 0%	14 <b>67%</b>

<b>2. Module 3: Linear Functions</b>					
	<b>Very Effective</b>	<b>Mostly Effective</b>	<b>Somewhat Effective</b>	<b>Not Effective</b>	<b>Did Not Use</b>
The Train Problem - Hexagons	4 <b>19%</b>	4 <b>19%</b>	3 14%	1 5%	9 <b>43%</b>
Four Forms Template	6 <b>29%</b>	4 <b>19%</b>	3 14%	0 0%	8 <b>38%</b>
Standard Form with Money/Mixtures - Becky Coin Problem	4 <b>19%</b>	5 <b>24%</b>	1 5%	0 0%	11 <b>52%</b>
Find the Other Three Forms - different difficulty levels	4 <b>19%</b>	1 5%	5 <b>24%</b>	0 0%	11 <b>52%</b>
Four Forms Assessment	4 <b>19%</b>	2 10%	3 14%	0 0%	12 <b>57%</b>

<b>3. Module 4: Patterns of Change</b>					
	<b>Very Effective</b>	<b>Mostly Effective</b>	<b>Somewhat Effective</b>	<b>Not Effective</b>	<b>Did Not Use</b>
Spaghetti Bridge	3 14%	7 <b>33%</b>	3 14%	0 0%	8 <b>38%</b>
Guess My Age	7 <b>33%</b>	5 24%	2 10%	0 0%	7 <b>33%</b>
Matching Activity – Table, Graph, Equation	5 <b>24%</b>	9 <b>43%</b>	1 5%	0 0%	6 <b>29%</b>
M&M’s – Exponential Growth and Decay	4 <b>20%</b>	7 <b>35%</b>	2 10%	0 0%	7 <b>35%</b>
Old MacDonald’s Pigpen – Quadratic Functions	0 0%	2 10%	3 14%	1 5%	15 <b>71%</b>
Barbie Bungee	2 10%	4 <b>19%</b>	3 14%	0 0%	12 <b>57%</b>
Hot Wheels Lab	0 0%	0 0%	2 10%	2 10%	17 <b>81%</b>

<b>4. Module 5: Systems of Equations</b>					
	<b>Very Effective</b>	<b>Mostly Effective</b>	<b>Somewhat Effective</b>	<b>Not Effective</b>	<b>Did Not Use</b>
Crunch Berries Activity	0 0%	3 14%	3 14%	0 0%	15 <b>71%</b>
Jenn vs. Jermaine Role Play Shopping Activity	4 <b>19%</b>	4 <b>19%</b>	3 14%	1 5%	9 <b>43%</b>
Matching Activity – Types of Solutions	5 <b>24%</b>	4 <b>19%</b>	4 <b>19%</b>	0 0%	8 <b>38%</b>
Algebra Tiles to Model Substitution and Elimination	4 <b>19%</b>	2 10%	4 <b>19%</b>	1 5%	10 <b>48%</b>

<b>5. Module 6: Inequalities</b>					
	<b>Very Effective</b>	<b>Mostly Effective</b>	<b>Somewhat Effective</b>	<b>Not Effective</b>	<b>Did Not Use</b>
Graphing One-Variable Inequalities Example Dialogue	2 10%	4 <b>19%</b>	2 10%	1 5%	12 <b>57%</b>
Graphing One-Variable Inequalities Scrambled Eggs Activity	1 5%	3 14%	4 <b>19%</b>	1 5%	12 <b>57%</b>
Solving One-Variable Inequalities Example Dialogue	1 5%	4 <b>19%</b>	1 5%	1 5%	14 <b>67%</b>
Verbal Problems for Solving One-Variable Inequalities	2 10%	3 14%	5 <b>24%</b>	0 0%	11 <b>52%</b>
Graphing Two-Variable Inequalities Mowing Lawns Example Dialogue	3 <b>14%</b>	2 10%	2 10%	1 5%	13 <b>62%</b>

<b>6. Module 7: Polynomials</b>					
	<b>Very Effective</b>	<b>Mostly Effective</b>	<b>Somewhat Effective</b>	<b>Not Effective</b>	<b>Did Not Use</b>
Adding and Subtracting Polynomials Puzzle	4 <b>19%</b>	5 <b>24%</b>	3 14%	0 0%	9 <b>43%</b>
Algebra Tiles to Model Polynomials	5 <b>24%</b>	4 <b>19%</b>	2 10%	1 5%	9 <b>43%</b>
X-box Factoring	5 <b>24%</b>	2 10%	3 14%	1 5%	10 <b>48%</b>
Polynomial Partner Practice	3 14%	3 14%	4 <b>19%</b>	0 0%	11 <b>52%</b>

<b>7. Module 8: Quadratic Functions</b>					
	<b>Very Effective</b>	<b>Mostly Effective</b>	<b>Somewhat Effective</b>	<b>Not Effective</b>	<b>Did Not Use</b>
Exploring Graphs of Quadratic Functions Group Activity	2 10%	4 <b>19%</b>	3 14%	0 0%	12 <b>57%</b>
Playground Construction Problems	1 5%	3 14%	3 14%	0 0%	14 <b>67%</b>
Graphing Families of Quadratic Functions	4 <b>19%</b>	3 14%	2 10%	0 0%	12 <b>57%</b>
Function Challenges – 20 questions	2 10%	2 10%	3 15%	0 0%	13 <b>65%</b>

<b>8. Module 9: Modeling</b>					
	<b>Very Effective</b>	<b>Mostly Effective</b>	<b>Somewhat Effective</b>	<b>Not Effective</b>	<b>Did Not Use</b>
Thirst Dilemma	2 10%	0 0%	3 14%	0 0%	16 <b>76%</b>
Applets to Demonstrate Correlation and Least Squares Regression	0 0%	0 0%	4 <b>19%</b>	1 5%	16 <b>76%</b>
Anscombe Data Sets	0 0%	0 0%	1 5%	1 5%	19 <b>90%</b>
Investigations Using Data Collection (Poster Activity)	1 5%	2 10%	4 <b>19%</b>	0 0%	14 <b>67%</b>

<b>9. Module 10: MishMash</b>					
	<b>Very Effective</b>	<b>Mostly Effective</b>	<b>Somewhat Effective</b>	<b>Not Effective</b>	<b>Did Not Use</b>
Visual Representation of Square Root	4 <b>19%</b>	3 14%	3 14%	0 0%	11 <b>52%</b>
Investigating Distance/Relating Distance Formula & Pythagorean Theorem	3 14%	6 <b>29%</b>	3 14%	0 0%	9 <b>43%</b>
Investigating Midpoint	2 10%	4 <b>19%</b>	4 <b>19%</b>	0 0%	11 <b>52%</b>

<b>12. For each strategy, indicate how often you have used it during the 2010-11 school year.</b>					
	<b>Weekly</b>	<b>Bi-weekly</b>	<b>Monthly</b>	<b>Rarely (1-2 times)</b>	<b>Not Used</b>
Background Knowledge	10 <b>48%</b>	4 <b>19%</b>	4 <b>19%</b>	2 10%	1 5%
Multiple Intelligences	5 <b>24%</b>	1 5%	5 <b>24%</b>	5 <b>24%</b>	5 <b>24%</b>
Math Talk (Shoulder Buddy, Poster Problems/Gallery Walk, Think-Pair-Share, Sentence Structures, Four Corners, Venn Diagram)	4 <b>19%</b>	5 <b>24%</b>	8 <b>38%</b>	3 14%	1 5%
Collaborative Learning (Numbered Heads Together/Jigsaw, Coffee Can Activity, Round Robin, Station Review)	4 <b>19%</b>	7 <b>33%</b>	5 <b>24%</b>	2 10%	3 14%
Manipulatives (Hands On Equations, Algebra Tiles, etc.)	3 14%	5 <b>24%</b>	8 <b>38%</b>	2 10%	3 14%

<b>13. For each strategy, indicate how often you have used it in 2010-11 as compared to how often you used it in 2009-10.</b>				
	<b>More Frequently than 2009-10</b>	<b>About the Same Frequency as 2009-10</b>	<b>Less Frequently than 2009-10</b>	<b>Not Used</b>
Background Knowledge	7 <b>33%</b>	14 <b>67%</b>	0 0%	0 0%
Multiple Intelligences	7 <b>33%</b>	9 <b>43%</b>	1 5%	4 <b>19%</b>
Math Talk (Shoulder Buddy, Poster Problems/Gallery Walk, Think-Pair-Share, Sentence Structures, Four Corners, Venn Diagram)	10 <b>48%</b>	10 <b>48%</b>	1 5%	0 0%
Collaborative Learning (Numbered Heads Together/Jigsaw, Coffee Can Activity, Round Robin, Station Review)	12 <b>57%</b>	8 <b>38%</b>	0 0%	1 5%
Manipulatives (Hands On Equations, Algebra Tiles, etc.)	11 <b>52%</b>	8 <b>38%</b>	0 0%	2 10%

<b>14. How much do you feel the strategies and activities provided in this training have helped to increase your students' understanding of mathematical concepts in 2010-11 as compared to your students from 2009-10?</b>		
A lot	5	24%
Somewhat	<b>13</b>	<b>62%</b>
Not at all	3	14%
<b>Total</b>	21	100%

<b>15. How much do you feel the strategies and activities provided in this training have helped to increase your students' level of engagement as compared to a traditional approach?</b>		
A lot	6	29%
Somewhat	<b>14</b>	<b>67%</b>
Not at all	1	5%
<b>Total</b>	21	100%

APPENDIX C1

**District Improvement Logic Model  
for Adolescent Literacy**

**Need**--Although WCPSS met AYP in Reading for Grades 6-8 and at Grade 10 for all subgroups in 2010, two of the subgroups (Grade 10 Reading LEP and SWD) were met with confidence interval. With an increased target for 2011, some subgroups are in danger of not meeting AYP based on past performance. Students who are three or more years behind in reading are more likely to perform below grade level and not graduate from high school. Because WCPSS lacks a systematic structure for student literacy intervention assistance in all grade spans or an in-depth understanding about literacy among many secondary teachers, there is a concern that some of these students may not receive the necessary support.

Strategies	OUTCOMES EXPECTED			
	Year 1, 2009-10	Year 2, 2010-11	Year 3, 2011-12	Year 4, 2012-14
<p>Offer district-wide professional development in adolescent literacy to teachers from targeted and non-targeted schools.</p> <p><b>District-wide Training:</b>  <b>2009-2010:</b> Provide RIAL training to 100 middle and high school English/language arts, special education teachers, intervention teachers. RIAL training includes: reading strategies, progress monitoring, and assessment (cohort 1).  <b>2010-11</b> Provide RIAL training to 50 additional teachers (cohort 2); Provide Foundations of Reading Training to 50 K-12 secondary teachers with the primary focus on middle and high school English/language arts teachers, special education teachers, intervention teachers, and Secondary Literacy Coaches.</p>	<p><b>Teachers:</b> Positive ratings of training by 80% just after training and 70% on a 3-month follow-up survey.</p>	<p>Offer 3 sessions of RIAL and 1 session of Foundations of Reading for general education teachers in grades K-5, special education teachers K-12, intervention teachers K-12.</p> <p><b>Teachers:</b> 80% positive ratings of training after training and 70% on a 3-month follow-up survey.</p> <p><b>Teachers:</b> 50% or more of trained teachers are implementing strategies from training as reported in follow-up survey three months later.</p> <p><b>Teachers:</b> Increased awareness and application of strategies provided by coaches and by professional development.</p> <p>Systems and structures developed to improve reading screening in schools with coaches.</p> <p><b>Students:</b> A 2% increase in reading proficiency of students of middle and high school trained English/Language Arts (ELA) teachers.</p>	<p><b>Teachers:</b> 75% or more of trained teachers are implementing strategies from training as reported in a 3-month follow-up survey.</p> <p><b>Students:</b> A 2% increase in reading proficiency of students of middle and high school ELA teachers who participated in training. A 2% increase in EOGs/ EOCs of students of middle and high school teachers who received coaching support or professional development in meeting reading ABC growth targets.</p> <p><b>District:</b> Number of AYP targets missed decreases.</p>	<p><b>Students:</b> An increased percentage of students in classes of teachers implementing literacy strategies reach growth targets.</p> <p><b>District:</b>  <b>2012-13</b>                      The number of AYP targets met in <i>trained</i> schools increases.  <b>2013-14</b> District meets AYP at middle and high school level.</p>

Coaching Support Offered to Targeted Schools:	2009-2010	2010-11	2011-12	2012-14
<p><b>2009-10:</b> Identify schools with greatest need for literacy coaching support; provide coaching and training at the school site at targeted schools. Coaches work primarily with English I PLTs, lead full-staff sessions, or work with other PLTs or individual teachers. Coaches collaborate with Intervention Coordinators and other staff at schools to assist with the development of systems and structures to identify students needing reading interventions, develop plans for assessing students, and develop structures for interventions.</p>	<p>Twelve schools are targeted for Secondary Literacy Coach in Year I.</p> <p>Each of the 5 coaches works with between 4 and 10 teachers but may work with additional teachers as well. Collaboration with intervention coordinators to develop systems and structures to support students in need. Professional development available to teachers across the district: Offer RIAL sessions for language arts and special education teachers in grades 6-12.</p> <p><b>Teachers:</b> Increased knowledge of strategies and processes for supporting reading development of students.</p>	<p>District Improvement funded Literacy coaches continue to provide support to English/Language Arts teachers at 12 schools.</p> <p><b>Students:</b> DI targeted subgroups meet Safe Harbor targets:Hispanic 56.9% Black/African American 59.7% Econ. Disadvantaged 56.2% Increase of 2% of students reaching ABC growth targets.</p>	<p>Coaches identify students at risk of reading failure and support their teachers to help meet the needs of these students.</p> <p><b>Teachers:</b> increased percentages of students of the coached teachers meet growth targets in English I (high school) and reading EOG (middle school). <b>Students:</b> 2% increased English I proficiency for students of trained ELA teachers</p> <p><b>District:</b> Number of AYP targets missed decreases.</p>	<p><b>Students:</b> English I proficiency increases by 2% and reading EOG proficiency in Grades 6-8 increases by 2%.</p> <p><b>District:</b> Middle and High Schools meet AYP in reading.</p> <p><b>2013-14</b> Secondary schools meet AYP second year in a row.</p>

## APPENDIX C2

### Secondary Literacy Initiative Evaluation Methods

#### Focus Group

Questions were developed based on the evaluation plan by the Senior Director for Program Accountability, Data and Accountability Department. The Senior Director facilitated the discussion, while a recorder noted responses and taped the discussion. Six questions were asked of the 14 coaches present. Three of the coaches were funded through District Improvement funds. The size of the group and seating arrangement (classroom style in rows) made it challenging to operate the discussion as a focus group, so at times it was more of a general discussion. However, an attempt was made to hear everyone's views on each question. Notes were summarized by the recorder and reviewed and edited by the Senior Director.

#### Teacher Survey

A secondary literacy coaching survey was sent to 50 teachers at two middle schools and six high schools to determine the impact of the coaching model on students and at their school. Six teachers responded "no" as to whether their school had a coach although the survey went only to the teachers who received some coaching support. Teachers were given the opportunity to respond to questions such as how the secondary literacy coach had helped in various situations, the number of times the teacher had worked with the coach, and the areas in which they had seen growth since they began working with the literacy coach.

#### Coaching Logs

Five coaches kept logs of how their time was used. They completed secondary coaching logs as a pilot for the school system. Those logs were kept from February until May 2011 and showed that the coaches cumulatively spent 2159.5 in their role. The logs captured such information as how much time was spent on engaging teachers, coaching individual teachers (including: pre-conferences, modeling, co-teaching, observation, post-conferences), working with teams (in areas such as with PEPSs, grade level and departmental meetings), administrative partnerships, locating/creating materials, and the coaches own professional development.

#### E-School Records

The e-Schools system allows WCPSS personnel to enroll in staff development opportunities provided by the district. At the end of a course, attendees are asked to anonymously evaluate the course. The evaluation feedback is used by the workshop facilitators to improve training. After a period of time, a second survey is sent to each participant. The second survey, also anonymous, is to determine whether participants have implemented the things they learned into their classrooms or area of responsibility.

**APPENDIX C3**

**Zoomerang Survey Results**

**Feedback for Secondary Coaches Program  
Teacher Survey**

<b>13. Does your school have a Secondary Literacy Coach?</b>		
Yes	44	88.0%
No	6	12.0%
<b>Total</b>	<b>50</b>	<b>100%</b>

<b>14. Indicate how clear the responsibilities of the Secondary Literacy Coach are to you.</b>		
<b>Very Clear</b>	<b>21</b>	<b>48.8%</b>
Mostly Clear	10	23.3%
Somewhat Clear	9	20.9%
Not Clear	3	7.0%
<b>Total</b>	<b>43</b>	<b>100%</b>

<b>16. How often have you worked with the Secondary Literacy Coach at your school during the 2010-11 school year?</b>		
Weekly	10	27.0%
<b>Monthly</b>	<b>14</b>	<b>37.8%</b>
3-5 times	8	21.6%
1-2 times	5	13.5%
<b>Total</b>	<b>37</b>	<b>100%</b>

<b>17. Please indicate how often the Secondary Literacy Coach has done each of the following during the 2010-11 school year.</b>					
	<b>Weekly</b>	<b>Monthly</b>	<b>3-5 times</b>	<b>1-2 times</b>	<b>Never</b>
The coach has assisted me with planning.	6 16.7%	5 13.9%	13 36.1%	8 22.2%	4 11.1%
The coach modeled instructional practices in my classroom.	3 8.6%	1 2.9%	3 8.6%	7 20.0%	21 60.0%
The coach has observed my classroom instruction.	1 2.9%	1 2.9%	7 20.0%	10 28.6%	16 45.7%
The coach has provided feedback on my instructional strategies.	3 8.6%	6 17.1%	10 28.6%	9 25.7%	7 20.0%

<b>18. Please indicate how helpful the Secondary Literacy Coach has been when providing the following assistance to you during the 2010-11 school year.</b>				
	<b>Very Helpful</b>	<b>Mostly Helpful</b>	<b>Somewhat Helpful</b>	<b>Not Helpful</b>
The coach has assisted me with planning.	17 56.7%	8 26.7%	4 13.3%	1 3.3%
The coach has modeled instructional practices in my classroom.	8 61.5%	3 23.1%	1 7.7%	1 7.7%
The coach has observed my classroom instruction.	9 50.0%	4 22.2%	2 11.1%	3 16.7%
The coach has provided feedback on delivery of my instructional practices.	13 61.9%	4 19.0%	2 9.5%	2 9.5%

<b>19. The Secondary Literacy Coach has worked with or helped me in the following situations.</b>		
Providing appropriate resources for instruction	27	75.0%
PLT meetings	22	61.1%
Grade level meetings	17	47.2%
Literacy Team Meeting	17	47.2%
Analyzing data to plan and deliver instruction	16	44.4%
Modeling for a small group	12	33.3%
Data Team Meeting	11	30.6%
Assisting with PEP	4	11.1%
Co-Teaching	4	11.1%
Other, please specify	4	11.1%

<b>20. Please indicate how helpful the Secondary Literacy Coach was when working with you in the following situations.</b>				
	<b>Very Helpful</b>	<b>Mostly Helpful</b>	<b>Somewhat Helpful</b>	<b>Not Helpful</b>
Grade level meetings	11 52.4%	5 23.8%	4 19.0%	1 4.8%
PLT meetings	18 69.2%	5 19.2%	2 7.7%	1 3.8%
Analyzing data to plan and deliver instruction	14 63.6%	4 18.2%	3 13.6%	1 4.5%
Providing appropriate resources for instruction	21 80.8%	2 7.7%	3 11.5%	0 0.0%
Assisting with PEP	3 37.5%	1 12.5%	1 12.5%	3 37.5%
Data Team Meeting	11 73.3%	2 13.3%	0 0.0%	2 13.3%
Literacy Team Meeting	16 84.2%	3 15.8%	0 0.0%	0 0.0%
Co-Teaching	5 71.4%	0 0.0%	1 14.3%	1 14.3%
Modeling for a small group	11 84.6%	2 15.4%	0 0.0%	0 0.0%
Other (as specified in the question above)	1 25.0%	2 50.0%	1 25.0%	0 0.0%

<b>21. Since you have begun working with the Secondary Literacy Coach, in which areas have you seen growth?</b>		
My awareness of literacy strategies	30	88.2%
My ability to use literacy strategies in my classroom	27	79.4%
My knowledge about literacy	24	70.6%
My ability to address the needs of struggling students across AYP subgroups	20	58.8%
My ability to differentiate instruction based on the literacy needs of my students	18	52.9%
My ability to examine and interpret data	12	35.3%
My understanding of the SCOS and how literacy fits into the SCOS	11	32.4%
Classroom management	10	29.4%
Increased job satisfaction	10	29.4%
My content area knowledge	9	26.5%

<b>22. Since you have begun working with the Secondary Literacy Coach, in which areas have you seen student growth?</b>		
Student engagement	23	74.2%
Classwork performance	21	67.7%
Reading and comprehension skills during class participation	18	58.1%
Student motivation	13	41.9%
Other formative assessments	12	38.7%
Blue Diamond assessments	5	16.1%
Other, please specify	3	9.7%

<b>23. Since you have begun working with the Secondary Literacy Coach, approximately what percentage of your students do you feel have benefited from the Secondary Literacy Coach's support?</b>		
85-100%	8	24.2%
75-84%	5	15.2%
<b>50-74%</b>	<b>11</b>	<b>33.3%</b>
25-49%	5	15.2%
Less than 25%	4	12.1%
<b>Total</b>	<b>33</b>	<b>100%</b>

<b>26. Please select your school from the list below:</b>		
East Garner Middle School	5	10.0%
East Wake High School	27	54.0%
East Wake Middle School	5	10.0%
Knightdale High School	2	4.0%
Southeast Raleigh High School	6	12.0%
West Milbrook Middle School	3	6.0%
Zebulon Middle School	2	4.0%
<b>Total</b>	<b>50</b>	<b>100%</b>

<b>28. Please select the content area(s) that you currently teach.</b>		
Academically/Intellectually Gifted	0	0%
Arts	1	2.0%
Career and Technical Education	2	4.0%
English/Language Arts	14	28.0%
English as a Second Language	1	2.0%
Healthful Living	0	0.0%
Mathematics	6	12.0%
Media Services	1	2.0%
Science	11	22.0%
Social Studies	6	12.0%
Special Education	4	8.0%
World Languages	1	2.0%
Other, please specify	5	10.0%

**APPENDIX D  
LEA AYP Results**

**2010-11**

<b>Level</b>	<b>Reading</b>	<b>Math</b>
High School – 10	MISSED –Black, American Indian, ED*, LEP,SWD	MISSED – LEP,SWD
Grades 6-8	MISSED -Black, ED, LEP, SWD	MISSED – All, American Indian, Black, Multiracial, ED, LEP, SWD
Grades 3-5	MISSED -Black, American Indian, ED	MISSED - All, American Indian, Black, ED, LEP, SWD

**2009-10**

<b>Level</b>	<b>Reading</b>	<b>Math</b>
High School – 10	MET	MISSED – BLACK, SWD
Grades 6-8	MET	MISSED - HISPANIC
Grades 3-5	MET	MISSED – BLACK, FRL

**2008-09**

<b>Level</b>	<b>Reading</b>	<b>Math</b>
High School – 10	MISSED – LEP	MISSED – BLACK, FRL, SWD
Grades 6-8	MET	MET
Grades 3-5	MET	MET

**2007-08**

<b>Level</b>	<b>Reading</b>	<b>Math</b>
High School – 10	MET	MISSED – BLACK, HISPANIC, FRL, LEP, SWD
Grades 6-8	MISSED – BLACK, HISPANIC, FRL, SWD	MISSED – ALL STUDENTS, BLACK, HISPANIC, MULTI-RACIAL, FRL, SWD
Grades 3-5	MISSED – HISPANIC, FRL, SWD	MISSED – BLACK, HISPANIC, FRL, SWD

\* FRL (eligible for free or reduced-price lunch) changed to ED (economically disadvantaged).

**2006-07**

<b>Level</b>	<b>Reading</b>	<b>Math</b>
High School – 10	MISSED – LEP, SWD	MISSED - SWD
Grades 6-8	MISSED – SWD	MISSED – BLACK, HISPANIC, FRL, LEP, SWD
Grades 3-5	MISSED – SWD	MISSED – BLACK, FRL, SWD

**2005-06**

<b>Level</b>	<b>Reading</b>	<b>Math</b>
High School – 10	MISSED – LEP, SWD	MISSED - SWD
Grades 6-8	MISSED – SWD	MISSED - SWD
Grades 3-5	MISSED – LEP, SWD	MET

**2004-05**

<b>Level</b>	<b>Reading</b>	<b>Math</b>
High School – 10	MISSED – LEP, SWD	MISSED – SWD
Grades 6-8	MISSED – LEP, SWD, HISPANIC	MISSED – LEP, SWD, BLACK
Grades 3-5	MISSED – LEP, SWD	MISSED - SWD