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WAKE COUNTY PUBLIC SCHOOL SYSTEM (WCPSS) PROFESSIONAL LEARNING TEAMS (PLTs): 2009-10 SCHOOL-BASED POLICY IMPLEMENTATION STUDY

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ABSTRACT

As a result of Board Policy 3610, PLTs were implemented across WCPSS in a consistent fashion in 2009-10. Data show that implementation improved and teachers spent more time engaged in collaborative work. School staff cited numerous benefits for teachers and students. Regression analyses showed a reasonably strong correlation between high levels of PLT implementation and students' academic achievement, attendance, and their overall level of satisfaction with their schools. Essential characteristics of PLTs were illustrated in case studies of high-performing PLTs' in the district. While collaborative cultures have been well-established, most teams could benefit from additional training on ways to use data, and on ways to evaluate the success of their efforts. Communications with school communities could also be more consistent across schools.

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EXECUTIVE SUMMARY

Within Professional Learning Teams, or PLTs, teachers actively collaborate, share expertise, improve their skills, examine and use various forms of data, and learn from each other—all for the purpose of improved student learning. PLTs have been used for several years in WCPSS by different schools to varying extents.

In July 2009 the WCPSS Board officially endorsed and formalized the PLT concept with Board Policy 3610, which specifies that "every school-based certified staff member should have equal access to a minimum of one hour for participation in weekly professional learning teams and to the Board-approved early release days for collaboration and job-embedded professional development." Logistically, the district's administrators decided that the best way to implement this policy would be to dismiss students one hour early every Wednesday to allow teachers to meet in collaborative groups. The weekly early dismissal became known as "Wake Wednesdays," and was intended to provide stronger support, more consistency, and more time for PLT work. While "Wake Wednesdays" have been discontinued, the Board policy pertaining to PLT implementation has remained in place.

Board Policy 3610 specifies improvement in student achievement and attainment of the Board goal (high student growth in achievement and all students graduating on time) as its purpose. Specific expectations had not been laid out for exactly what short-term, intermediate, and long-term outcomes were expected, and on what timeline, until the PLT Steering Committee collaborated with the Evaluation & Research Department (E&R) to develop a logic model. Evaluation questions for 2009-10 were generated to encompass the short-term expected outcomes of the policy pertaining to implementation, teacher impact, and student impact. This summary contains a short synopsis of the results, and the body of the report explores these issues in greater detail.

IMPLEMENTATION

Did PLTs meet weekly with high attendance?

PLTs generally did meet weekly with high attendance. According to the High Five PLT Survey results (Jackl, 2010), the percentage of teachers indicating they met in their primary PLT at least weekly increased substantially from 2007-08 and 2008-09 to 2009-10. The percentage of teachers meeting at least weekly increased from just over half (56% and 55%) in 2007-08 and 2008-09 to 89% in 2009-10. This was the largest increase for any item on the survey. Members not attending their primary PLT meeting could be in multiple PLTs, or work part-time.

Did PLTs use productive protocols?

Protocols – standardized aspects of functioning as a team – were utilized in WCPSS PLTs. In the case of PLTs, protocols include structures such as agendas or minutes; roles such as facilitator and recorder, and ways of conducting the work of the team. Related High Five survey results indicate high percentages (over 80%) of PLTs:

- Established norms to clarify how they work as a team and abide by them;
- Set SMART goals and develop common formative assessments;
- Use data to identify students in need of support and evaluate the results of their instructional practices.

Generally, the percentage of staff agreeing to each of these items has improved over time.

A series of case studies were developed as part of the evaluation. They revealed strong teams had some sort of agenda, although some were more formal and some were much simpler. All teams had established roles for facilitating and recording their efforts. Evidence of team norms for appropriate behavior was also observed, as well as the use of data and common formative assessments. Most teams indicated they had SMART goals, but only some addressed SMART goals directly during the meetings observed.

Was information about PLT work communicated to parents?

Board Policy 3610 states that principals shall, "communicate with the school community, using a variety of media including the school website, the specific work being done, the importance of professional collaboration, and the impact on results." Data from surveys and website reviews indicate school staff were communicating PLT information in a variety of ways.

Principal survey results revealed schools communicate with parents and school communities using a variety of methods and with varying depth.

- Across levels, principals were most likely to convey general information about PLT work at their schools, the importance of the work, and the impact of the work on students. The meeting schedule was conveyed by the majority of elementary and middle schools. Certain specific facets of PLT work, such as the meetings' agendas and minutes, were less likely to be communicated.

- Overall, websites were the most common way (68% to 82% by level) principals conveyed aspects of PLT work to their school community. Beyond the websites, verbal communications were also a common way to share information about PLTs (e.g., at school meetings). In addition, printed newsletters, email, and automated phone messages were also used to a lesser extent.

School website reviews revealed that the amount of PLT information being posted, as well as the ease and accessibility of that information, varied widely from school to school. Little change was noted between the mid-year and end-of-year checks. The nature and importance of PLTs,

the schedule, and other information were found at the majority of school sites. However, meeting agendas and minutes were posted by less than 20% of schools at each level. Newsletters were also not commonly seen at websites. Overall, 31 elementary, nine middle, and seven high schools had no web postings related to PLTs. Whether this related to waiting for a central database is unknown.

SHORT-TERM TEACHER IMPACT

Did PLTs show the six essential characteristics?

The WCPSS characteristics include having a shared vision and values, a collaborative culture, collective inquiry into best practice, a focus on results, supportive and shared leadership, and supportive conditions. The six characteristics of PLTs promoted within WCPSS relate closely to the six themes covered in the High Five Survey. Specific items are too numerous to detail; results by theme (see Table 1) demonstrate the high percentage of staff agreeing with items within each theme. The one to four percentage point increase in positive responses occurring for each theme between the 2008-09 and 2009-10 school years (when the Board policy was implemented) suggest a slightly more consistent implementation of PLT concepts.

Table 1
Overall PLT Survey Results by Theme 2008-09 to 2009-10

PLT Theme	Percent Agree / Strongly Agree		
	2008-09	2009-10	Change from 08-09 to 09-10
Focus on Learning and Teaching	87%	90%	3%
Collaborative Culture/Team Process	89%	92%	3%
Instructional Strategy/Intervention	85%	87%	2%
Common Formative Assessments	81%	85%	4%
Support and Resource Allocation	71%	73%	2%
Overall Impact	79%	80%	1%

2008-09 n = 7,306; 2009-10 n = 7,660. Note: Percentages rounded to the nearest whole number.
Data Source: WCPSS data analysis of 2007-08, 2008-09, and 2009-10 High Five PLT Surveys

The six characteristics promoted for PLTs in WCPSS provide information both on implementation and anticipated short-term outcomes of the Board policy on teachers.

Shared Vision and Values

High Five survey results indicated over 80% of teachers agreed on essential learning outcomes, had SMART goals, and agreed to monitor their progress. High-performing PLT case study results provided examples of group discussions of team goals and objectives and alignment of PLT goals with school improvement plans. A common commitment to improved student learning and the use of data were also observed.

Collaborative Culture and Collective Inquiry

Increased collaboration among teachers was one expected outcome of the policy implementation for 2009-10, and the data collected showed that collaboration had increased.

- The percentage of WCPSS teachers who responded positively to High Five survey items about their level of collaboration and team processes has increased steadily over the past three years, from 87% in 2007-08 to 92% in 2009-10. The most common amount of time teachers reported having to collaborate in PLTs increased from 30-60 minutes in 2007-08 and 2008-09 to more than one hour in 2009-10. In terms of collective inquiry, 92% of teachers agreed by 2009-10 that they were identifying more effective instructional strategies (up 1% from the prior year).

  In addition, the percentage of teachers agreeing that their PLT utilizes a schoolwide "pyramid of interventions" to support struggling students increased from 70% to 81% in 2009-10. PLT discussions are seen as key to this initiative, which supports students in regular classrooms through interventions and monitors their progress through assessments of their progress (with revisions to strategies as needed).

- In addition, results of the North Carolina Teacher Working Conditions Surveys (Spring 2008 and Spring 2010) support increased collaboration among teachers. Most WCPSS teachers (83.6%) agreed in spring 2010 that they had time to collaborate with colleagues, which was up by nearly 16 percentage points from 2008. In addition, 83.3% of teachers agreed in 2010 that they had an effective process for making group decisions to solve problems, up from 69% in 2008.

- All ten WCPSS high performing PLT case studies exemplified a collaborative culture in terms of high participation levels among members and group decision making. Members valued their involvement in PLTs for a variety of reasons, including camaraderie, guidance on effective lesson plans, sharing of educational resources, and receiving feedback about their teaching strategies. Some of the strong PLT case studies discussed student success on a more general level (such as the class), while others focused more on small groups or individual students.

Focus on Results

Teachers generally seem to have increased their understanding and use of assessments and standards, a short-term outcome. In terms of standards, High Five PLT survey results from 2009-10 indicate high percentages of teachers (84% to 93%) had identified essential learning outcomes based on the NC Standard Course of Study, used standards to assess their students, used SMART goals as a standard for success with students, and believed their students can master these outcomes. Use of team-adopted standards and SMART goals increased between 2008-09 and 2009-10, suggesting the policy change may have had a positive impact.

In terms of assessments, most teachers (over 80%) have developed common formative assessments and examined results to identify students who need additional support. However,

frequency of use of common formative assessments actually declined in 2009-10. Elementary school staff were more likely than middle or high school staff to use common formative assessments to identify students who need support (88% versus 78% and 79%, respectively).

Some case study PLTs have focused a great deal on essential skills within the curriculum. In addition, some have spent a great deal of time developing common formative assessments, administering and scoring them, and grouping students for further instruction based on them. Others have focused on understanding and utilizing Blue Diamond assessment results. High school case studies suggested more rapid turnaround of Blue Diamond results and training on use of the results would increase appropriate use of these data.

Modified classroom strategies for students also appeared to increase after the policy change. On the three High 5 Surveys for 2007-08 through 2009-10, the percentage of positive responses to items about instructional strategies and their use were high initially, but all increased slightly over time. The PLT policy may have contributed to the continued improvement evident in 2009-10. The percentage of teachers indicating that they strongly agreed with each item increased from four to six percentage points over time. The item most specifically related to whether teachers modified their strategies was worded as: "We utilize increasingly more effective instructional strategies." This item increased from 88% in 2007-08 to 90%, in 2009-10, with a gain of four percentage points in those who "strongly agreed" with the statement over the three years.

Case studies of strong PLTs provided examples of collaborative lesson planning and assessment planning as well as sharing of resources and activities for classroom use. Some of the new teachers commented on how beneficial it was to be able to get ideas and feedback from experienced colleagues.

Teachers also increased their skills and use of data. SMART goals are goals that are specific, measureable, attainable, results-oriented, and time-bound. The use of SMART goals to set objectives and monitor progress increased with the PLT policy. High Five Survey data show an increase in teachers' use of SMART goals between 2007-08 and 2009-10. The data suggest that more PLTs are adopting the practice of establishing SMART goals (up seven percentage points), and that PLTs are making a more focused effort to ensure that their SMART goals are aligned with those established for their school (up ten percentage points). When asked if their team's SMART goals were aligned with their school's goals, elementary teachers expressed the highest level of agreement (93%), followed by high (91%) and middle (86%) school teachers.

Case studies revealed that data from common formative assessment programs were evident in most high-performing PLTs. Common formative assessments, Blue Diamond assessments, and internet-based testing resources were all observed in use. Universally, all teams attempted to use data to improve instruction, even though teachers' levels of data use skills tended to vary widely. Students' choices of wrong answers often informed teachers of students' needs. Instruction was often differentiated once students' needs were identified, often through shifting students to small groups for re-teaching.

Supportive and Shared Leadership

High-performing case study results revealed a great deal of variation in leadership structures and the dominance of the leader in making decisions. In about one fourth of the cases, the group had one dominant leader. A number of teams had co-leaders, while duties rotated on other teams. Co-leaders and rotating duties were especially common in year-round schools, where one or more team members were frequently tracked out at a time. Regardless of leadership structure, members reported feeling comfortable sharing and discussing issues.

Supportive Conditions

The Board policy definitely contributed to ensuring that all teams had at least one hour per week for collaborative planning. In the case studies, all teams observed had a place to meet and a standard time to meet; teams usually met in a classroom or a common area such as the media center or cafeteria.

Research has shown that PLTs provide more supportive conditions for teachers (DuFour & Eaker, 1998). Increased teacher satisfaction and teacher retention were expected to result. Based on the High 5 survey, 92% of teachers agreed that PLTs provide a more supportive environment for teachers; 80% agreed that PLTs have made them a better teacher.

Teacher Working Conditions Survey data also suggest that PLTs may be one factor influencing teachers' sense of being supported. The percentage of WCPSS teachers who agreed that their school is a good place to work and learn increased from 77.6% of WCPSS teachers in 2008 to 85.5% in 2010 – an increase of 7.9 percentage points. This also places WCPSS teachers almost one percentage point above the state average.

Teacher retention rates have also improved slightly in recent years. The percentage of teachers leaving the district was 10.34% in 2007-08, peaked at 11% in 2008-09, and fell to a 9.62% attrition rate in 2009-10. While many factors influence teacher attrition, use of PLTs may be one contributing factor, especially in 2009-10.

STUDENT IMPACT

In the first year of policy implementation, examples of PLT success cases were the primary indicator of the PLT policy's impact, rather than more systemwide impact. There are many examples of PLT success stories from diverse sources, and anecdotal evidence of the positive impact can be found virtually anywhere PLTs are discussed among certified staff. To support and encourage quality PLT work, the Curriculum and Instruction department recently began an award process in which schools can nominate PLTs as exemplary through responses to standard questions. The PLT Steering Committee selected several high-performing PLTs in Spring 2010 who were recognized at a Board meeting. Reductions in the percentage of students with failing grades, increased proficiency on EOC tests, and improved writing and reading level results (grade 1) were three examples reported for students.

Other evidence of PLT success stories was obtained from the Spring 2010 early release surveys and the Raising Achievement Closing Gaps (RACG) Summit of 2009-10. In the Early Release Surveys, principals at all levels volunteered examples of successful implementation and positive impact of PLT work. Some examples included improvements in the vertical alignment of the curriculum, collaborative development of essential learning questions, and better ways to monitor students' academic progress on an ongoing basis. In the RACG Summit, 12 schools had shown closing of racial and need-based achievement gaps over time. All 12 schools cited PLT collaboration as key to the success of their efforts.

By the end of 2010-11, improved student outcomes systemwide in terms of failing grades, fewer retentions, and improved achievement are expected. Baseline information from 2008-09 indicated about 12% of grades given in ninth grade were Fs, and across the district 4% of the students were retained. Slight improvements in EOG and EOC scores were seen over prior years in 2009-10, but it is too early to attribute this to PLT implementation.

A regression analysis conducted to determine the relationship between PLT functioning and selected educational outcomes provides some evidence that PLTs, when implemented over time with consistency at a school level, can positively impact EOG/EOC results and other student outcomes such as attendance rates and student school survey ratings.

RECOMMENDATIONS

We recommend continuation of the PLT work and policy based on our study results. Some suggestions for improvement follow, which may further strengthen the impact of efforts.

- Share and discuss the expected impact of PLTs with school principals (based on the logic model) and ask them to share it with school staff. Also share the expectations with central staff.

- Clarify and standardize expectations about aspects of the Board policy such as the definition of school community and expectations for what to communicate to whom.

- Increase data training for teachers, especially as it pertains to generating and interpreting Blue Diamond reports, as well as ways that formative assessment data can be used to set objectives and guide instruction. Also streamline Blue Diamond data processing protocols to optimize use so the teachers have the results before they move on to other topics.

- Ensure that PLTs focus on enrichment as well as remediation.

- Increase the extent to which PLTs use research-based strategies to guide their efforts and systematically evaluate the success of the interventions tried.

- Provide as much flexibility and control over their time usage as possible for high-performing PLTs, minimizing administrative mandates for how PLT time will be spent.

- Formalize an ongoing training program for PLTs—for leaders, for new teachers, and for differentiated instruction. Remind leaders of how to obtain available resources, such as the PLT "fishbone" at: http://www.wcpss.net/curriculum-instruction/resources/admin/plc_framework/index.html .

- Continue assessing PLT implementation across the district using various means.

WAKE COUNTY PUBLIC SCHOOL SYSTEM (WCPSS) PROFESSIONAL LEARNING TEAMS (PLTs): 2009-10 SCHOOL-BASED POLICY IMPLEMENTATION STUDY

INTRODUCTION

The concept of Professional Learning Communities, or PLCs, was first introduced in the 1960s as an alternative to independent, disconnected teachers working in isolation. Within a PLC, teachers break with this tradition by actively collaborating, sharing expertise, improving their skills, examining and using various forms of data, and learning from each other—all for the purpose of improved student learning.

In the educational literature, the term PLC is sometimes used to refer to the small collaborative groups, and sometimes to a collection of these small groups at a school, regional, or district level. However, the smaller groups are also known as Professional Learning Teams (PLTs) in the literature (DuFour, DuFour, Eaker, & Many, 2007). Originally, WCPSS did differentiate between the two; the term PLC was used to describe school-based collaborative learning teams, whereas PLT was used for collaborative teams operating within central services. To reduce confusion and unify the district's efforts, PLT became the universal term for all WCPSS staff members in 2009. By extension, the many PLTs operating within the district's network would comprise a larger, all-inclusive Professional Learning Community.

Over the years the PLT concept has become increasingly familiar to WCPSS education professionals as a "best practice" to foster professional growth and increase student achievement. Educational research supports the implementation of PLTs at all grade levels as a way to improve student outcomes; the overwhelming consensus is that it is one of the best practices in the teaching profession (DuFour, DuFour, Eaker, & Many, 2007; Huffman, Hipp, Pankake, & Moller, 2001; Phillips, 2003; Roberts & Pruitt, 2003). Today teacher collaboration is being hailed as one of the most effective ways to turn ordinary schools into extraordinary ones (Honawar, 2008).

Within WCPSS, the PLT concept first took root in 2003 when a group of six corporations (SAS, BlueCross-BlueShield of North Carolina, A.J. Fletcher Foundation, Capital Broadcasting, Progress Energy, and The News & Observer) formed a partnership with the five school districts of Chapel Hill-Carrboro, Durham, Johnston, Orange, and Wake counties. This consortium, the High Five Regional Partnership for High School Excellence, combined forces to improve graduation rates and to better prepare students for higher education and the careers of their choice. After reviewing the educational research, the foundation of the improvement effort focused on the implementation of PLTs across all schools and districts. Since the 2003-04 school year, the High Five partnership has funded numerous training opportunities for principals, teachers, and support staff members. High Five initially focused on training high school staff on PLTs, with other levels gradually added.

WCPSS central and school administrators have worked to fully instill the PLT concept through High Five and through independent efforts. Initially, high schools had the most extensive

training on PLTs (starting in 2003-04 in collaboration with High Five). Across the years, middle schools implemented data teams, individual elementary schools explored PLTs on their own, and elementary school leaders added data teams through their regional teams. Early on, a WCPSS Steering Committee was formed, which guided training efforts and instituted an electronic "fishbone" (a quality tool) to provide access to a variety of resources to support PLC/PLT work. Other major activities by Central Services administrators to support PLT work within the schools are detailed in a separate report (Baenen & Jackl, 2010).

The implementation of PLTs has been emphasized districtwide as a primary strategy for achieving the district mission since 2006-07 (Reichstetter, 2008). The initiative received an additional impetus in August 2007, when the system invited Phi Delta Kappa associates to conduct a comprehensive Curriculum Management Audit. The report contained eight recommendations and over 100 suggested action steps for consideration – several of which recommended building a more collaborative culture with structures and processes in place that are data-based and results-oriented. Data show that building-level practitioners are in agreement with these recommendations; a recent national survey, for example, reported that 67% of teachers and 78% of principals surveyed believed that more collaboration would have a "major impact" on student achievement (Fine, 2010).

The objectives of the PLT initiative dovetail with the district's mission statement, which specifies that WCPSS will educate each student to be a responsible and productive citizen. One of the four strategic directives to accomplish the mission – a focus on learning and teaching – rests at the heart of the PLT concept and the district's strategy for continuous improvement. Yet it is important to note that researchers have documented that the specific implementation methods, and the amount of time currently allowed for such collaboration among educators, varies widely from school to school on a national level (Fine, 2010). An analysis of the High Five survey data collected over several years confirmed that this was true for WCPSS as well (Jackl, 2009a). In light of these findings, and the anticipated benefits of increased collaboration among educators, the Board took action in 2009 to make PLT implementation more uniform and consistent across the district.

BOARD POLICY (3610, 4510, 5040)

On July 21, 2009, the WCPSS School Board officially endorsed and formalized the PLT concept with Board Policy 3610, which defines a PLT:

> A Professional Learning Team is made up of members who regularly collaborate toward continued improvement in meeting student needs. Using data, professional experience, and best practice, the team works toward realizing a shared vision for a better learning environment. The primary emphasis of this work is on the support of learning and meeting the needs of all students.

Board Policy 3610 specifies that "every school-based and certified staff member should have equal access to a minimum of one hour for participation in weekly PLTs and to the Board-approved early release days for collaboration and job-embedded professional development." Logistically, WCPSS administrators decided the best way to implement this policy would be to

dismiss the students one hour early every Wednesday to allow teachers to meet in collaborative groups. The weekly early dismissal to provide the one-hour block of protected time dedicated to PLT work became known as "Wake Wednesdays." "Early release" days continued as they had been done in the past. On those designated early release days, the students would be dismissed two hours and 30 minutes earlier than the usual time so staff members could engage in training and collaboration after the safe departure of the students had been completed.

To ensure district-wide PLT implementation, the Board policy outlines the specific responsibilities of the Board itself, the superintendent, central services staff, the School Improvement Leadership Teams, all other school-based staff, and principals. The superintendent was directed to provide data that demonstrated the fidelity of implementation of the policy and its impact on student achievement. The responsibility for preparing reports on PLTs was assigned to the Evaluation and Research Department.

A comprehensive report evaluating the PLT initiative within central services was released in June (Baenen & Jackl, 2010). One key finding was that high percentages of principals (85%) believed central staff members provided adequate support to school efforts through guidance, resources, and training. The focus of this report is an evaluation of the PLT initiative as it relates to school-based personnel and school results.

Specifically, the Board policy directs school-based staff to:

- Participate in job-embedded professional development and weekly professional learning teams.
- Work in collaborative teams to:
  ▸ Build shared knowledge regarding expectations for student learning.
  ▸ Frequently monitor each student's learning.
  ▸ Identify goals that focus on student learning and require evidence of improved student learning.
  ▸ Share teaching strategies.
  ▸ Create a process for additional time and support in response to students experiencing difficulty or needing enrichment.

Furthermore, Board policy dictates that school leadership teams shall:

- Work with the principal to devise a professional learning team implementation plan that includes job responsibilities for all staff members.
- Clearly state in the School Improvement Plan how the time will be used.

Concurrently, each school's principal shall:

- Ensure that there is a minimum of 1,000 hours of instruction within the minimum of 180 instructional days.
- Be responsible for the implementation of professional learning teams at the school level.

- Communicate to the school community, using a variety of media including the school website, the specific work being done, the importance of professional collaboration, and its impact on results.
- Monitor and assess the progress of the implementation and improved results.
- Ensure that the work hours should be no less than the workday established by the Board of Education.
- Approve leave from Board-approved early release and professional learning team time only in extenuating circumstances.

It is worth noting that the Board policy is multi-faceted. In exchange for district-wide, protected collaboration time, the Board expects that schools will draft PLT implementation plans. Additionally, the school's principal is ultimately charged with stating how the protected collaboration time is going to used, ensuring that his or her faculty actually uses the time for its intended purpose, and that certified staff are only excused from participation because of extenuating circumstances. The principal is also charged with communicating with the "school community" about the specifics of the faculty's PLT work, the importance of the work, and its impact on results.

THE LOGIC MODEL

The purpose of PLTs is to meet student learning needs more fully in order to improve student outcomes. The Board policy specifies improvement in student achievement and attainment of the Board goal (high student growth in achievement and all students graduating on time) as the purpose.

Specific expectations for what changes would become evident over time, nor on what timeline, had been laid out in the policy. Therefore, Evaluation and Research staff worked with the PLT Steering Committee to develop a logic model that clarified the committee's expectations in terms of fidelity of implementation and improved student results. At periodic meetings, the membership discussed the fundamental needs being addressed by the policy, the overall goals of the initiative, and the key strategies being put in place to facilitate those objectives. More importantly, the committee reached a consensus on the short-term, intermediate, and long-term outcomes likely to result from increased teacher collaboration.

To conceptualize this information in graphic form, the logic model shown in Figure 1 was developed. Logic models are helpful tools in the planning, implementation, and evaluation phases of a program. They graphically illustrate the links between the planned activities and the desired outcomes that are expected to occur as a result (Hughes, Oberleithner, & Wrisley, n.d.). Similar to a flowchart, a logic model uses arrows to portray the interrelationship and/or interdependency of the various components.

The focus of this report targets the short-term outcomes the committee expected to see for the 2009-10 school year. As the logic model illustrates, these outcomes are germane to PLT implementation, teacher impact, and student impact. Additionally, the model includes exploratory statistical analyses of selected quantitative measures of student impact or, more specifically, the percentage of failing grades, changes in retention rates, and End of Grade (EOG)

and End of Course (EOC) results. These results establish baseline patterns for these student outcomes.

Figure 1
PLT Policy Evaluation Logic Model
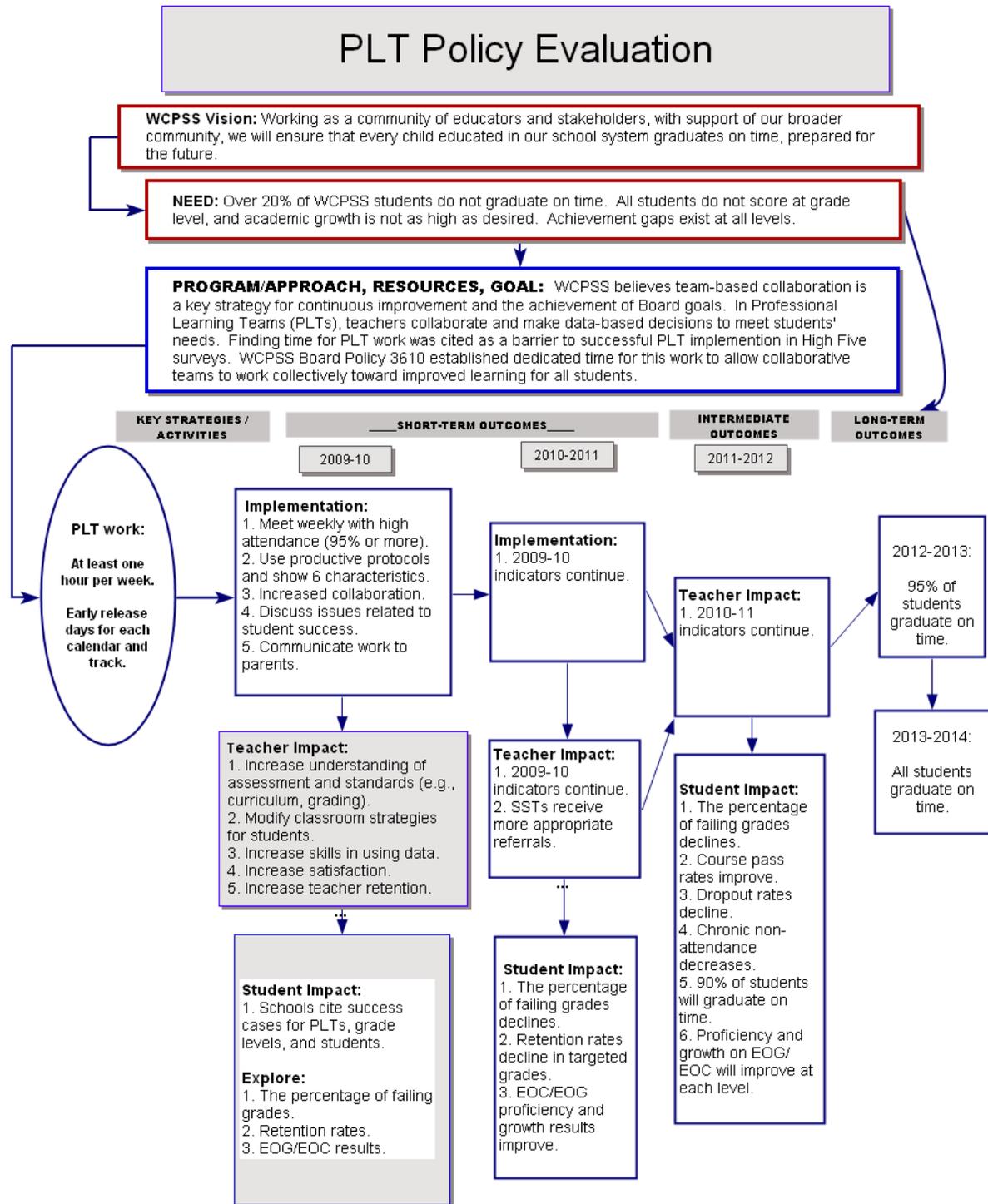
EVALUATION QUESTIONS

For program evaluations, it is established protocol to collect information on the nature of the program, implementation, and outcomes – with an emphasis on outcomes. Using the PLT Steering Committee's logic model, it is relatively easy to derive evaluation questions and match them to relevant data sources. As shown in Table 2, the evaluation questions are organized to encompass the short-term outcomes pertaining to implementation, teacher impact, and student impact. The data sources are described in greater detail in the following section.

Table 2
Data Sources Used to Verify Short-term Outcomes of PLT Policy

Short-Term Outcomes for 2009-10	Data Sources
Implementation	
Did PLTs meet weekly with high attendance?	High Five PLT Surveys
	Case Studies
Did PLTs use productive protocols and show six characteristics?	Principals' Survey
	Early Release Survey
Did collaboration among teachers increase?	NC Teacher Working Conditions Surveys
	School Websites and Artifacts
Did PLT members discuss issues related to student success?	
Did information about PLT work get communicated to parents?	
Teacher Impact	
Did teachers increase their understanding of assessments and standards?	
	High Five PLT Surveys
Did teachers modify classroom strategies for students?	Case Studies
	Early Release Survey
Did teachers increase their skills in using data?	NC Teacher Working Conditions Surveys
	WCPSS Human Resources Data
Did teachers show increased job satisfaction?	
Did teacher retention increase?	
Student Impact	
Did schools cite success cases for PLTs, grade levels, and students?	
	Case Studies
Exploratory: Did the percentage of failing grades decline in Grade 9?	Award Winning PLTs
	Early Release Survey
Exploratory: Did retention rates decline?	WCPSS School Databases
Exploratory: Did EOG/EOC test results improve?	

METHODOLOGY AND DATA SOURCES

Triangulation, or the process of collecting data from several different sources that all bear on a given phenomenon, was a cornerstone of this evaluation. In order to adequately address the complex evaluation questions revolving around PLT implementation, teacher impact, and student impact, information had to be collected from a wide variety of qualitative and quantitative data sources. The data sources used for this evaluation are described below.

High Five PLT Surveys: To assess PLT implementation and impact, four districtwide PLT surveys of WCPSS teachers were conducted. The High Five PLT surveys have remained the same for the past three academic years, allowing for comparisons over time (Reichstetter, 2008; Jackl, 2009b). The most recent High Five PLT Survey report examines the district's trends in greater detail (Jackl, 2010).

PLT Performance Index: For this report, the 2009-10 High Five survey results were compiled and averaged to produce a "PLT Performance Index" to quantitatively determine the overall level of PLT functioning within each school. Using regression analysis, this statistic was correlated with standardized school data to explore the relationship between the level of PLT functioning and desirable academic outcomes. This methodology is described in greater detail later in this document, in the section pertaining to student impact.

Case Studies: While quantitative data are valuable, useful, and provide insight, it is also important to study PLTs through direct observations in a manner that could be colloquially described as "up close and personal." To this end, case studies were conducted in schools with strong PLT implementation as of fall 2009. The schools targeted for this study were selected based on several important criteria. In order to identify high-performing PLTs for observation, these determining factors included:

- The schools' PLT Performance Index, a statistic calculated from the High Five survey data to estimate the overall level of PLT functioning;
- Recommendations of schools from the WCPSS Area Superintendents;
- Recommendations from principals of high-functioning PLTs in their schools.

Prior to the scheduled observations, all observers attended weekly training sessions to learn as much as possible about the PLT concept; within Evaluation and Research, this group came to be known as the "PLT on PLTs." After pilot observations were conducted at selected schools, these researchers were better able to determine what types of data would be collected, what instruments would be developed to collect data during the observation process, and how those data would be collated and organized.

It must also be noted that the targeted schools were selected to ensure that the sample was as representative as possible. In other words, care was taken to ensure that there was:

- An appropriate mix of elementary, middle, and high schools;
- A cross-section of traditional and year-round academic calendars;
- Representation from each of the district's seven (7) geographic areas.

Finally, one observation team was assigned to each of the "positive deviants" (Patterson, Grenny, Maxfield, McMillan, & Switzler, 2008) selected for this study. The chosen PLTs were observed over a three month timeframe from January to March 2010. Of these ten cases, seven of the PLTs were observed on a weekly basis and three PLTs were observed on a monthly basis. Notes were taken during the meetings of what occurred, and observers then summarized whether and how the recognized PLT themes (Defour et al., 2007) were addressed and which PLT characteristics were most evident (see Appendix B for a copy of the observation instrument). In this way, they served to highlight effective practices others may want to adopt and provide a more in-depth source of data for some of the evaluation questions.

At the conclusion of the observation series, each researcher conducted a focus group interview of the PLT participants. At this interview the researcher was able to probe for additional information, ask any lingering questions, and explore any issues pertaining to the group's dynamics in greater detail.

When the PLT observations and the focus group interviews were completed, each researcher compiled and reported his or her findings in a formal case study. Afterwards, those case studies were collectively analyzed to identify common themes, repeated patterns of discourse, relevant quotations, and other pertinent information. For purposes of this report, a theme was defined a "commonly appearing theme" if it was clearly evident in over 50% of the case studies.

By organizing these qualitative data thematically, the authors were able to enrich and support the quantitative data – and report a more comprehensive picture of the PLT implementation status within the district. In this report, case studies are reprinted in Appendix A and relevant findings are included in appropriate sections.

WCPSS Central Databases: WCPSS central databases include data relevant to student outcomes of PLT work. Over time, the impact of the PLT policy on student outcomes is expected to increase once schools consistently implement PLTs and rely on common formative assessments. Based on the logic model, changes in standardized test scores (EOG/EOC), failing grades, and retention rates are not anticipated until 2010-11. We include exploratory data for 2009-10 and before to establish baseline patterns for each of these indicators.

It was also possible to conduct exploratory analyses searching for impact on student outcomes based on schools that have been implementing PLTs with consistency prior to 2009-10, and those that were less consistent. A regression analysis was designed to explore the relationship between the High Five PLT Performance Indices and student performance indicators available through central databases, including the schools' performance composites, growth composites, attendance rates, percentages of students performing below grade level, and student survey ratings.

In the 2010-11 school years and beyond, it may be possible to compare WCPSS to other school systems in North Carolina and/or to selected districts that are not using PLTs as extensively.

Principals' Survey: In April 2010 WCPSS Evaluation & Research attended the principals' level meetings for the district's elementary, middle, and high schools. A brief survey was

conducted using Turning Point® software to capture the data and immediately display the results. The primary intent of the survey was to help verify the extent to which Board Policy 3610 was being implemented by the principals and their satisfaction with central services support. Survey questions are included in the appropriate sections of this report.

Early Release Survey: In June 2010 four additional questions were added to the standard Early Release Survey routinely completed by the district's principals after each early release day. Those additional questions, posed at the end of the school year, focused on the principals' positive and negative perceptions of Wake Wednesdays – as well as the adjustments they were planning to make at their schools to continue PLT work in 2010-11 after Wake Wednesdays were eliminated by the Board.

School Websites and Artifacts: Board policy (5040 R&P) directs that the School Improvement Leadership team create a Professional Learning Team plan and schedule. The plan must:

- Define the professional learning teams that will operate for the year;
- Assign staff members to the teams and schedule meetings for those teams;
- Include a process for establishing norms, meeting agendas, meeting minutes, and a method to make those items available for staff members;
- Make information available to the school community using a variety of media, such as newsletters, school messenger [an automated phone system], and include the school website.

PLT implementation plans and School Improvement Plans were artifacts of interest. The Area Superintendents instructed each school to prepare a PLT implementation plan to be stored in the school's notebook. The PLT implementation plan was often used in regional meetings; Area Superintendents indicated all schools had these plans. In addition, Area Assistants checked all School Improvement Plans for references to PLTs; all referenced PLTs in some sections of the plan, typically as a key processes or strategy. Finally, the Area Superintendents required the schools to report their plans for continuing PLT work in 2010-11 in the absence of "Wake Wednesdays," as well as the school's PLT meeting schedule by time and day of the week.

Additionally, to supplement the data from the principals' survey, an E&R research assistant visited each school's website to determine what PLT information was being reported through that venue. Those results are summarized later in this report.

WCPSS Human Resources Data: In order to address the question about teacher retention within the district, relevant data were obtained from WCPSS Human Resources.

NC Teacher Working Conditions Surveys: Since 2002, the Office of the Governor has deployed a biennial Teacher Working Conditions survey in April throughout the entire state. Some survey items are directly relevant to PLT work, such as the item asking teachers if they have time available to collaborate with colleagues. Consequently, several of the items germane to PLT work were used as a data source for this report. Wherever applicable, WCPSS results from the 2010 survey were compared to the NC state average, as well as Wake County's results from 2008.

PLT Steering Committee Meetings and Interviews: Evaluation and Research (E&R) department staff attended these meetings and gathered information about ongoing efforts to support collaborative work within WCPSS. Another member of the committee worked with the Area Superintendents to determine how the schools had included PLTs in their school improvement plans. Additionally, the facilitator for this group was interviewed to collect additional data, most of which focused on efforts to provide training and other resources to school-based practitioners and future plans.

Previous WCPSS E&R PLT Reports: E&R began studying the PLT concept four years ago when the paradigm was defined and the relevant literature reviewed (Reichstetter, 2006). Since then, evaluation specialists have reported on the 2006-07 survey to collect baseline data (Reichstetter & Baenen, 2007), conducted a study of PLT implementation status within the district (Reichstetter, 2008), disaggregated High Five survey data based on years of teaching experience (Baenen, 2009), and reported on central services PLT survey data (Jackl, 2009b; Baenen & Jackl, 2010). These previous results are at periodic intervals referred to throughout this report, along with the reports on the High Five survey data noted previously.

PROGRAM COSTS AND BENEFITS

It is too early to conduct a Cost Benefit Analysis (CBA) on PLTs, since most outcomes, especially for students, are not expected until after the 2010-11 school year. CBA is a study of an effort that states in monetary terms or other standard units the cost of the intervention and the benefits derived. The analysis generally takes into account the number of persons impacted, the benefits obtained, the amount of time over which the benefit may be assumed to exist, and the opportunity costs associated with the selection of an intervention. Most cost-benefit studies must have one or more alternatives that are compared and benefits that can be monetized or expressed in standard units. Cost benefit analyses are easier to interpret when single outcomes apply.

Several issues will be discussed in 2010-11 to determine the feasibility of a CBA study of PLTs. First, multiple goals apply related to student outcomes and teacher satisfaction, and it will be difficult to monetize all of the costs and benefits. It may be possible to list all the costs and benefits and create a model that focuses on what is quantifiable, with perhaps focus on one or two student academic outcomes. The alternative condition for comparison could be the absence of PLTs. Since WCPSS schools all now have functioning PLTs, alternatives for comparison will need to be considered.

LIMITATIONS OF THIS STUDY

At the time of writing this report, WCPSS is the largest school district in the state and the 18th largest in the entire nation, with 163 schools serving over 143,000 students. It is clear that nearly all teachers are engaging in collaborative work, and strong levels of support for the PLT paradigm have been documented. However, it is also clear that there is considerable variation when it comes to implementing PLTs at these diverse sites. While it remains possible to identify best practices for collaborative work, one must also remember that what works well at one school may not produce identical results when superimposed upon different faculties at other locations. Additionally, since most PLTs consist of relatively small groups, factors such as

individual personalities, group dynamics, administrators' expectations and operational parameters, and even the leadership style of the facilitator can impact the performance of the entire group. The needs and organization of teams at different levels (elementary, middle, and high school) also varies. This report provides data on consistent results and on the variation across campuses; ultimately, schools will determine what best applies to them.

Secondly, it is important to remember that most of our data sources are stronger when used in combination with other data sources than they are on their own. That is why triangulation of data was used to enable us to see trends and draw conclusions.

- The survey data, for example, are based upon self-reports. The high return rate (88%) increases our confidence that results represent the population.

- The case studies used in this analysis, like all case studies, were highly dependent upon the skill and past experiences of the observers on the research team. Observers were carefully trained in observation protocols and methodology, and the research team met weekly to develop and refine their observation instruments, the observation instruments were pilot-tested at different schools before the formal observations began, and certain members of the team were assigned to rotate their observation schedules among the different PLTs to provide cross-case validity and inter-rater agreement. Thus, the observations were conducted using sound qualitative methods.

We also chose to observe fewer teams in more depth for the case studies rather than a broader sample in less depth. Therefore, case study results are designed to provide a closer look at examples of PLTs considered successful, and results cannot be generalized. Still the observations represented only a slice in time for these teams, and we may not have had a chance to observe all of the types of activities or interactions that occurred across the year.

Third, it would be wise to remember that schools across the district are running many programs and educational initiatives simultaneously. An improvement in EOG scores, for example, might be the result of effective PLT work by the teaching staff – but it is also possible that the improvement could be attributed to a change in school leadership, a magnet program, an influx of community resources, or other explanatory variables. Conversely, a decline in desirable outcomes may be attributed to a changing demographic profile, staff reductions, larger class sizes, or other factors – even if solid PLT work and other elements successfully reduced and/or counteracted these negative effects (see Figure 2). In short, it is not possible to totally isolate the impact of PLTs in the absence of all other variables.

Figure 2
PLT Policy Evaluation: Factors Influencing Academic Achievement

Negative Influences   *Positive Influences*

(-)   *(+)*

PLT Work

Economic Crisis

Intervention Alignment

Academic

Larger Classes   Achievement   Professional Development

Learning & Teaching Guides

Staff Reductions

Other Improvement Efforts
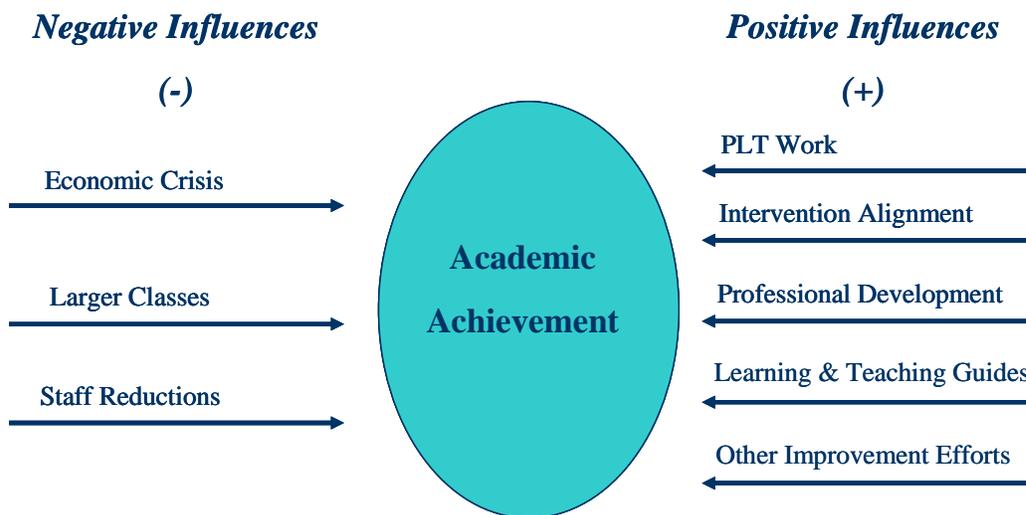
Finally, it should be noted that many elemental aspects of the PLT initiative can be interpreted in different ways by different people. When selecting schools with strong PLT implementation for the case studies, for example, the research team solicited recommendations from the area superintendents; when selecting teams to observe, the principals made recommendations. During the observation cycle the researchers concurred that the nominated PLTs were indeed strong, but strong in different ways. There was no universal consensus about what constitutes a high-functioning PLT; in many respects, the net effectiveness of the diverse PLTs appeared to be based on differing priorities and value judgments. Similarly, certain aspects of the Board policy were open to interpretation. To name one specific example, the principals were asked if they communicated various aspects of PLT work to their "school community." Not surprisingly, the principals held varying opinions about what constituted a "school community." Some believed it only included the school's faculty members, whereas others harbored much broader definitions that included parents and other stakeholders. Wherever applicable, these issues are addressed within the context of this report.

In conclusion, while some limitations are of note, this study used a variety of data sources, collected information in a reasonable way given the limitations of social research, analyzed the data using a variety of proven methodologies, and triangulated across data sources whenever possible. As such, meaningful and useful conclusions and recommendations for improvement could be made with conviction.

IMPLEMENTATION AND TEACHERS' SHORT-TERM IMPACT

The logic model calls for an evaluation of PLT implementation, as well as teacher impact. By necessity, those two areas of analysis often overlap. The following sections begin with a basic analysis of meeting attendance, meeting frequency, and other logistical issues. Thereafter, the issues of PLT implementation and teacher impact are addressed in greater depth.

DID PLTs MEET WEEKLY WITH HIGH ATTENDANCE?

According to the High Five PLT Survey results, the percentage of teachers indicating they met in their primary PLT at least weekly increased substantially from 2007-08 and 2008-09 to 2009-10. The percentage of teachers meeting at least weekly increased from just over half (56% and 55%) in 2007-08 and 2008-09 to 89% in 2009-10. This was the largest increase for any item on the survey.

Since the Board policy dictates that "every school-based certified staff member should have equal access to a minimum of one hour for participation in weekly professional learning teams," one might expect that figure to be closer to 100 percent. However, it is important to remember that a teacher could easily belong to more than one PLT. In that event the teacher completing the High Five PLT Survey was directed to answer the questions as they pertain to his or her *primary* PLT. In addition, teachers who are part-time may not be available to participate every week. Nevertheless, the data detailed in Table 3 show that the vast majority of PLTs are meeting weekly at all levels.

Table 3
2007-08 to 2009-10 PLT Meeting Frequency

Statement	School Year	Daily	Weekly	Twice a Month	Monthly	Quarterly	None	No Response
My PLC typically meets:	2007-08	3%	53%	20%	20%	4%	1%	0%
	2008-09	2%	53%	20%	20%	3%	0%	2%
	2009-10	2%	87%	6%	4%	0%	0%	0%
Change from 07-08 to 09-10:		-1%	34%	-14%	-16%	-4%	-1%	0%
Elementary	2009-10	1%	90%	4%	4%	0%	0%	0%
Middle	2009-10	3%	85%	7%	5%	0%	0%	0%
High	2009-10	2%	86%	8%	3%	0%	0%	0%

2007-08 n = 6,858
2008-09 n = 7,306
2009-10 n = Elementary: 4,066; Middle: 1,459; High: 1,901; Total: 7,426
Note: All percentages were rounded to the nearest whole number; consequently, totals may not equal 100 percent in all cases.
Data Source: WCPSS data analysis of 2007-08, 2008-09, and 2009-10 High Five PLT Surveys

In addition to a weekly meeting schedule, the Board policy expects high attendance at the PLT meetings. More specifically, the policy states that each principal must approve leave from early release and professional learning team time only in extenuating circumstances (Policy 3610).

The E&R department surveyed the district's principals about PLT attendance and implementation to collect data. A survey conducted at the April 2010 principals' meeting using Turning Point® data collection hardware and software queried principals about whether or not their school's PLT implementation plan described staff responsibilities, as well as the overall percentage of teachers in attendance at the weekly PLT meetings. Finally, the principals were

asked to verify that they only approved staff absences from these meetings under extenuating circumstances.

In the principal survey, several questions addressed aspects of PLT implementation (see Tables 4-6). In most cases, the elementary principals returned the highest percentage of positive responses, followed by the middle and high school principals. Table 4 shows that 86.4% of the high school principals, and over 90% of the middle and elementary principals, have a PLT implementation plan describing staff responsibilities.

Table 4
Does your school have a PLT implementation plan that describes staff responsibilities?

Level	Yes	No
Elementary	96.7%	3.3%
Middle	93.3%	6.7%
High	86.4%	13.6%

Elementary n=92; Middle n=30; High n=22
Source: WCPSS Evaluation & Research Principals' Survey, April 2010

Universally, the principals reported high attendance at PLT meetings. As Table 5 shows, typical attendance exceeded 90% for faculty across all grade levels. This result is supported by Table 6, in which over 95% of all principals verified that they only approve faculty absences from PLT meetings when extenuating circumstances were present.

Table 5
What percentage of your certified staff typically attend their
PLT meetings on Wednesdays?

Level	100%	95% to 99%	90% to 94%	Less than 90%
Elementary	73.4%	24.5%	2.1%	0.0%
Middle	28.6%	57.1%	14.3%	0.0%
High	13.6%	81.8%	4.6%	0.0%

Elementary n=94; Middle n=28; High n=22
Source: WCPSS Evaluation & Research Principals' Survey, April 2010

Table 6
I only approve faculty members to be absent from PLT meetings when they have extenuating circumstances.

Level	True	False
Elementary	96.8%	3.2%
Middle	100.0%	0.0%
High	95.5%	4.6%

Elementary n=93; Middle n=28; High n=22
Source: WCPSS Evaluation & Research Principals' Survey, April 2010

WAS INFORMATION ABOUT PLT WORK COMMUNICATED TO PARENTS?

Board Policy 3610 states that principals shall, "communicate with the school community, using a variety of media including the school website, the specific work being done, the importance of professional collaboration, and the impact on results." Two data sources provided information relevant to school communications with parents and school communities.

- First, E&R staff surveyed district principals in the spring about the various aspects of PLT that were being communicated to the schools' communities, the methods used to convey that information, and the frequency with which the information is updated.

- Second, E&R staff reviewed school websites mid-year and in summer of 2009-10 to see what was posted on school websites about PLTs. It is important to note that the school website was the only venue specifically mentioned to be used in the Board policy as one means of communication.

Survey Results

Based on the spring survey results, it is worth noting that:

- Across levels, principals indicated they were most likely to use the school website to convey general information about PLT work at their schools. The second and third most likely items at every level were the importance of the work and the impact of the work on students. The schedule was conveyed by the majority of elementary and middle schools.

- Elementary principals were more likely to explain the general nature and importance of PLT work, followed by high and middle school principals.

- Elementary principals were also more likely to explain the impact of PLT work on students and staff members, followed by high and middle school principals.

- Lower percentages of middle school principals reported using the website to communicate PLT work than elementary and high school principals.

- Certain specific facets of PLT work, such as meeting schedules, agendas, and minutes, were less likely to be communicated than the more general information about these activities.

Table 7 tabulates the survey results in greater detail.

Table 7
Aspects of PLT Work Principals Communicate to Parents and Community Members

	Elementary		Middle		High	
Element	**n**	**%**	**n**	**%**	**n**	**%**
The general nature of the work	86	92.5%	23	74.2%	20	90.9%
The importance of the work	79	84.9%	16	51.6%	18	81.8%
The meeting schedule	57	61.3%	16	51.6%	10	45.5%
Team agendas	30	32.3%	4	12.9%	6	27.3%
Team minutes	32	34.4%	6	19.4%	5	22.7%
The impact of PLTs on staff	57	61.3%	12	38.7%	13	59.1%
The impact of PLTs on students	79	84.9%	18	58.1%	16	72.7%

Elementary n=93; Middle n=31; High n=22
Source: WCPSS Analysis of April 2010 Principals' Survey Results

Based on survey results, schools used a variety of venues to convey aspects of PLT work to their school community. Consider these findings based on Table 8:

- Overall, principals (68% to 82% by level) most frequently used their websites to convey aspects of PLT work to their school community.

- Elementary principals were more likely to distribute a printed newsletter (63.4%) than are high (40.9%) or middle school principals (35.5%).

- High school principals were more likely to convey information electronically via email (27.3%) than middle (25.8%) or elementary principals (16.1%).

- Between 25.8% and 35.5% of the principals indicated that they communicated with their school community in other unspecified ways.

Table 8
Venues Used to Communicate Aspects of PLT Work to the School Community

	Elementary		Middle		High	
Venues	**n**	**%**	**n**	**%**	**n**	**%**
School Website	76	81.7%	23	74.2%	15	68.2%
Printed Newsletters	59	63.4%	11	35.5%	9	40.9%
Email	15	16.1%	8	25.8%	6	27.3%
Automated Phone System	29	31.2%	8	25.8%	8	36.4%
Verbally	74	79.6%	23	74.2%	17	77.3%
Other Ways	24	25.8%	11	35.5%	6	27.3%

Elementary n=93; Middle n=31; High n=22
Source: WCPSS Analysis of April 2010 Principals' Survey Results

Principals were also asked how often they communicate any new information about their staffs' PLT work to their school communities. Board Policy does not address frequency of communications. Here again, as shown in Table 9, there was considerable variance.

- The most popular response for elementary principals was "at least once a month" (31.9%), whereas more middle school principals responded "at least quarterly" (37.9%). The data suggest that high school principals were less likely to communicate on a frequent basis, with the most common response being "less often than quarterly" (40.9%).

- The vast majority of elementary (83.5%) and middle school (82.8%) principals reported communicating with their school community at least quarterly or more often. In contrast, 59.1% of high school principals reported at least quarterly communication.

Table 9
Frequency of Communication of PLT Work to the School Community

	Elementary		Middle		High	
Frequency	**n**	**%**	**n**	**%**	**n**	**%**
At least once a week	20	22.0%	5	17.2%	3	13.6%
At least once a month	29	31.9%	8	27.6%	4	18.2%
At least quarterly	27	29.7%	11	37.9%	6	27.3%
Less often than quarterly	15	16.5%	5	17.2%	9	40.9%

Elementary n=91; Middle n=29; High n=22
Source: WCPSS Analysis of April 2010 Principals' Survey Results

Website Review

As noted earlier, Board policy dictates that the school website be used to communicate information about PLT work to the school community. E&R staff reviewed school websites in December of 2010 to see which aspects of the Board policy were available at school websites.

The percentages of schools using the website were lower than expected and it was not always easy to find the PLT information at school sites.

These trends were shared with the PLT Steering Committee. The PLT Steering Committee also reviewed the status of work on a database being designed centrally by the internet coordinators to capture PLT information in a consistent way. The consensus was that the website asked for more information than would be reasonable to expect schools to complete. At a subsequent meeting, the PLT Steering Committee reviewed a simplified form and decided that is was not appropriate to mandate all schools to use the system for the rest of the semester. The Senior Directors for each grade span agreed to discuss, at their next principals' meeting, the status of the central database, the importance of using school websites, and the need for consistent placement of the information on the websites.

Other PLT information was available at the majority of school sites, such as the nature and importance of PLTs, the schedule, and a variety of other information. Overall, 31 elementary, nine middle, and seven high schools had no web postings related to PLTs.   The location of information about PLTs at websites was not consistent across schools, and some was buried more deeply in the site than others.

The content and location of PLT information were re-checked in summer of 2010. An examination of school websites revealed that the amount of PLT information being posted, as well as the ease and accessibility of that information, varied widely from school to school. Little change was noted between the mid-year and end-of-year checks. Meeting agendas and minutes were posted by less than 20% of schools at each level. Whether this related to school staff waiting for a central database to become available is unknown.   It is possible some schools had removed agendas and minutes from 2009-10 by July, especially in the case of year-round schools. Newsletters were also not commonly seen at websites. Table 10 provides additional detail disaggregated by school level.

Table 10
PLT Information Posted on Schools' Websites

School Level	Agendas 12/09	Agendas 7/10	Minutes 12/09	Minutes 7/10	Newsletters 12/09	Newsletters 7/10	Other PLT Information 12/09	Other PLT Information 7/10
Elementary	13.6%	9.8%	16.5%	12.7%	13.6%	13.7%	54.9%	53.9%
Middle	15.6%	12.5%	18.8%	12.5%	9.4%	18.8%	37.5%	59.4%
High	3.8%	3.9%	3.8%	3.8%	7.7%	15.4%	53.8%	69.2%

Elementary n=103; Middle n=32; High n=26
Source: WCPSS analysis of school websites.

DID PLTs USE PRODUCTIVE PROTOCOLS?

Examples of specific survey items on the High Five Survey related to protocols are shown in Table 11. High percentages of teachers responded positively to each item, with an increase in positive responses for all items. The data show that the vast majority of PLTs have developed customs, procedures, rules, and norms to govern their functioning – including established formalized procedures to resolve conflicts within the group.

Table 11
Examples of High Five Survey Questions Pertaining to Group Protocols

Statement	School Year	Strongly Agree	Agree	Disagree	Strongly Disagree	Don't Know/No Response	% Positive	% Negative
We have established norms to clarify how we will work as a team.	2007-08	42%	50%	7%	1%	0%	92%	8%
	2008-09	48%	46%	4%	1%	1%	94%	6%
	2009-10	54%	42%	3%	1%	1%	96%	4%
Change from 2007-08 to 2009-10:		12%	-8%	-4%	0%	1%	4%	-4%
Elementary	2009-10	57%	40%	2%	0%	0%	97%	2%
Middle	2009-10	50%	45%	4%	1%	1%	95%	5%
High	2009-10	55%	41%	3%	1%	1%	96%	4%
We abide by the explicit team norms we developed.	2007-08	32%	57%	9%	1%	1%	89%	10%
	2008-09	38%	53%	7%	1%	2%	91%	9%
	2009-10	43%	50%	5%	1%	1%	93%	6%
Change from 2007-08 to 2009-10:		11%	-7%	-4%	0%	0%	4%	-4%
Elementary	2009-10	44%	50%	5%	1%	1%	94%	6%
Middle	2009-10	40%	52%	6%	1%	1%	92%	7%
High	2009-10	44%	48%	6%	1%	1%	92%	7%
We have a process to effectively resolve conflict.	2007-08	26%	53%	17%	2%	1%	79%	18%
	2008-09	30%	51%	15%	2%	2%	81%	17%
	2009-10	28%	54%	14%	2%	2%	82%	16%
Change from 2007-08 to 2009-10:		2%	1%	-3%	0%	1%	3%	-2%
Elementary	2009-10	32%	51%	13%	2%	2%	83%	15%
Middle	2009-10	28%	53%	15%	1%	2%	81%	17%
High	2009-10	32%	51%	13%	2%	2%	83%	15%
We document and monitor our processes so that we can improve.	2007-08	30%	58%	10%	1%	0%	88%	10%
	2008-09	36%	52%	8%	1%	2%	88%	10%
	2009-10	38%	54%	6%	1%	1%	92%	7%
Change from 2007-08 to 2009-10:		8%	-4%	-4%	0%	1%	4%	-3%
Elementary	2009-10	39%	54%	5%	1%	1%	93%	6%
Middle	2009-10	35%	56%	8%	1%	1%	91%	9%
High	2009-10	41%	52%	5%	1%	1%	93%	6%

2007-08 n = 6,858; 2008-09 n = 7,306; 2009-10 n = 7,660
Note: All percentages were rounded to the nearest whole number.
Data Source: WCPSS data analysis of 2007-08, 2008-09, and 2009-10 High Five PLT Surveys

DID PLTs SHOW THE SIX ESSENTIAL CHARACTERISTICS?

The High Five PLT Survey included items for each of six themes related to PLT implementation: a focus on teaching and learning, collaborative culture and team processes, instructional strategies and interventions, common formative assessments, support and resource allocation, and overall impact. In general, the vast majority of the survey participants responded favorably to all survey items, with the percentage of positive responses (defined as the percentage of teachers indicating that they either "agree" or "strongly agree") increasing from between 66% and 87% in the 2007-08 school year, to between 73% and 92% in the 2009-10 school year. As shown in Table 12, the most recent data from 2009-10 revealed strong agreement across all six themes. The themes related to focusing on learning and collaborative culture have consistently had the strongest levels of agreement. Over time, the percentage of respondents who expressed agreement with the PLT survey statements increased from 4 to 7 percentage points within every theme area.

Table 12
Overall PLT Survey Results by Theme

PLT Theme	Percent Agree / Strongly Agree			
	2007-08	2008-09	2009-10	Change from 07-08 to 09-10
Focus on Learning and Teaching	85%	87%	90%	5%
Collaborative Culture/Team Process	87%	89%	92%	5%
Instructional Strategy/Intervention	80%	85%	87%	7%
Common Formative Assessments	79%	81%	85%	6%
Support and Resource Allocation	66%	71%	73%	7%
Overall Impact	76%	79%	80%	4%

2007-08 n = 6,858; 2008-09 n = 7,306; 2009-10 n = 7,660
Note: All percentages were rounded to the nearest whole number.
Data Source: WCPSS data analysis of 2007-08, 2008-09, and 2009-10 High Five PLT Surveys

Beyond these general trends, more specific evidence of the six characteristics of effective PLTs within teams is a useful way to organize results about both implementation of PLTs and the expected short-term impacts for teachers in 2009-10. Results from the High Five Survey and case study observations are particularly helpful to measure the presence of the six WCPSS characteristics. The survey provides breadth, representing nearly all teachers and PLTs. The series of high-implementing PLT observations, along with the resulting case studies, provide depth to enrich the survey results. They were particularly helpful in determining if and how high-performing PLTs routinely demonstrated the six essential characteristics identified by WCPSS. The most common elements appearing within the case studies have been sorted and organized according to their relevance to the six essential PLT characteristics. The following tables and text report the results of that coding process by characteristic, as well as samples of relevant quotations extracted from the case studies to support and enrich the other data.

Shared Vision and Values

WCPSS expectations are that PLTs are guided by a shared vision and common values. More specifically:

- School has undeviating focus on student learning.
- Teachers picture students as academically capable.
- Vision and values guide the behavior of individuals no matter where they work or in what endeavor.

High Five Survey Results

Results of the High 5 Survey indicated high percentages of teachers had a focus on student learning and believed students were academically capable. SMART goals supported the idea of a common vision to guide their behavior. Shared values of openness, honesty, solving conflicts, and monitoring processes to support continuous improvement were evident. In summation, the survey data for WCPSS teachers document that:

- Nearly all (93%) agreed they had identified essential learning outcomes for students;
- The vast majority (84%) agreed that students could master these outcomes;
- Nearly all (91%) indicated they had SMART goals they were working to achieve (positive responses have increased over time);
- Nearly all (90%) agreed they were open and honest about their strengths and weaknesses;
- Most (82%) indicated they had a process to effectively solve conflict;
- Nearly all (92%) agreed that they documented and monitored their processes so they could improve.

Thus, survey results support the idea that PLTs had a shared vision and values in 2009-10.

Case Study Results: Shared Vision and Values

Commonly appearing themes in our observations and case studies also provide supportive evidence of a focus on shared vision. The presence of shared values was more difficult to observe.

Table 13
Characteristic #1: Shared Vision and Values

Commonly Appearing Themes
Group discussion of team goals and objectives.
Conscious alignment of PLT goals with the School Improvement Plan (SIP).

Source: WCPSS analysis of PLT case studies.

Whether the school had an undeviating focus on student learning could be observed based on whether PLT time focused on learning and teaching. In nearly all teams, this was the case, with little off-task behavior observed.

Two pieces of evidence we watched for in the case studies were whether teams had clearly defined goals and objectives, and whether they were referenced in PLT discussions. Most teams had established SMART goals at some point, but many teams seldom referred back to them during our spring observation sequence.

- Some high-performing PLTs routinely invested time discussing specific goals and objectives that influenced their long-range and short-term planning. It was not unusual, for example, for a PLT to have a standing long-term SMART goal tied to the School Improvement Plan (e.g., 90% of all students will be proficient readers by the end of the year), while using the collaborative PLT time to review assessment data and determine next steps for the week ahead (see characteristic #4).

- In most cases, however, the group members seldom referred to the long-term SMART goals and/or used data to see if they had attained benchmarks marking progress towards that goal. In the minds of the teachers, the long-term SMART goals seemed to evolve into more general objectives such as "improve reading skills."

> **Case Study Excerpts:**
>
> "Each quarter the PLT develops SMART goals (in reading, writing and math) making sure they are aligned with the goals outlined in their School Improvement Plan."
>
> "Brainstorming instructional strategies was a part of virtually every meeting. It generally consisted of a free-flowing discussion among all the teachers about what materials and personnel resources they could use to work on building students' skills in the area of their current SMART goal."
>
> "Every meeting agenda contained the team's carefully crafted SMART goals, benchmarks, and means of assessing progress towards those goals. Statistics, however, were seldom discussed directly… these teachers were driven by a simple, common desire to improve student achievement in reading and writing – and structured their discussions accordingly."

Our expectation was that teams would refer to their progress on SMART goals specifically more often. Admittedly, we were not present at the beginning of the year when SMART goals were set. It is possible that we observed action steps tied to the School Improvement Plan SMART goals, and that SMART goal progress was checked specifically at set intervals we did not observe. It appeared to observers, however, that many of these strong teams were driven only generally by SMART goals.

In terms of seeing students as academically capable, most of the PLTs definitely demonstrated through their language that all students could learn with appropriate support; making excuses for why the students could not learn was not commonly observed.

Collaborative Culture and Collective Inquiry

Collaborative Culture and Collective Inquiry are not only critical elements of a successful PLT, but increased teacher collaboration was anticipated as a short-term outcome of the PLT Board policy. The PLT concept is built to instill a culture of collaboration within the teaching staff,

which in turn leads to a collective inquiry into best practice. More specifically, the intended results are:

- Teachers work together in goal-directed grade level, subject matter, departmental teams.
- While working together and learning from each other, teachers are continually improving.
- Teachers analyze, experiment, and assess.
- They tolerate (even encourage) debate, discussion, and disagreement.
- They learn as a group and reflect on each other's teaching strategies.
- They share both successes and failures.

Did collaboration increase among teachers?

High Five Survey Results

Broadly speaking, the percentage of WCPSS teachers who responded positively when asked about their level of collaboration and team processes has increased steadily over the past three years; survey items pertaining to that specific High Five survey theme moved from 87% in 2007-08 to 92% in 2009-10 (see Table 12).

As noted earlier, the same surveys have documented the increased frequency of PLT meetings (see Table 2). In addition to meeting on a more frequent basis, the data show that WCPSS teachers are meeting for longer periods of time as well – suggesting a greater degree of collaboration than typically occurred in the past. More specifically, the High Five PLT survey routinely asks the teachers about the length of their typical PLT meeting.

Fortunately, the wording on the relevant High Five survey items concerning the length of a typical PLT meeting was kept the same to allow comparisons over time. However, it is not ideal for measuring the extent to which PLTs met "at least one hour" as stated in Board policy because the categories were "less than 30 minutes," "30 minutes to one hour," and "more than one hour." Thus, a one hour meeting time fit within the 30-60 minute category. Results suggest a substantial shift in responses to longer typical meeting times:

- The most typical response moved from 30 minutes to one hour in 2007-08 and 2008-09 to more than one hour in 2009-10.

- The percentage of teachers indicating their meetings typically lasted more than one hour doubled from 26% to 52% between 2007-08 and 2009-10.

> **Case Study Excerpts:**
>
> "It was apparent during the observations that the teachers in the PLT have a great deal of respect and trust for one another and a willingness to accept feedback. Additionally this PLT seemingly has a transparent culture for sharing and discussing student data and/or work as well as instructional strategies."
>
> "There was a feeling of camaraderie and trust among the participants, as they did not seem to hesitate to ask each other questions, or bluntly say that they had not understood some concept or ask for help with any aspect of what was discussed."

- The percentage of teachers indicating their meetings lasted 30-60 minutes, or more than one hour, totaled 98% in 2009-10, compared to 90% in 2007-08. Only a one percentage point difference was evident across levels.

As Table 14 illustrates, Board Policy 3610 appears to have dramatically impacted the amount of time staff devote to PLT activities.

Table 14
PLT Meeting Length 2007-08 to 2009-10

Statement	School Year	Less than 30 Minutes	Thirty Minutes to One Hour	More than One Hour	No Response
The length of a typical PLT meeting is:	2007-08	10%	64%	26%	0%
	2008-09	8%	63%	28%	1%
	2009-10	1%	47%	52%	1%
Change from 07-08 to 09-10:		-9%	-17%	26%	1%
Elementary	2009-10	0%	42%	57%	0%
Middle	2009-10	1%	54%	45%	0%
High	2009-10	1%	53%	46%	0%

2007-08 n = 6,858
2008-09 n = 7,306
2009-10 n = Elementary: 4,066; Middle: 1,459; High: 1,901; Total: 7,426
Note: All percentages were rounded to the nearest whole number; consequently, totals may not equal 100 percent.
Data Source: WCPSS data analysis of 2007-08, 2008-09, and 2009-10 High Five PLT Surveys

NC Teacher Working Conditions Survey Results

In addition to the PLT-specific High Five survey, the North Carolina Teacher Working Conditions Surveys (Spring 2008 and Spring 2010) also support the idea that PLT work increased collaboration among teachers over time (see Table 15). The data show:

- Most WCPSS teachers (83.6%) agreed in spring 2010 that they had time to collaborate with colleagues, which was up by nearly 16 percentage points from 2008.

- Between spring of 2008 and 2010, the percentage of WCPSS teachers agreeing that they experienced an atmosphere of trust and mutual respect in their schools, and that they received feedback that helped improve their teaching, increased by 5.8 and 12.2 percentage points, respectively.

- In three of the four survey items, WCPSS responses were more positive than the state average in 2010. For example, 83.6% of WCPSS teachers agreed they had time available to collaborate with colleagues compared to 73.2% statewide.

> **Case Study Excerpt:**
>
> "Despite the diversity of this team, a free exchange of resources and ideas was readily apparent. The veteran teacher had accumulated a plethora of supplemental resources, the tech-savvy Initially Licensed Teacher was able to locate useful internet-based resources, and the coach was able to share classroom management strategies. All three members, despite their diverse backgrounds, had something important to bring to the table."

34

Table 15
Collaboration Time Responses 2008 and 2010

Question	% Agree		
	2008 WCPSS	**2010 WCPSS**	**2010 NC**
Teachers have time available to collaborate with colleagues.	67.7%	83.6%	73.2%
The non-instructional time provided for teachers in my school is sufficient.	50.6%	64.5%	63.5%
There is an atmosphere of trust and mutual respect in this school.	67.8%	73.6%	72.7%
Teachers receive feedback that can help them improve teaching.	74.7%	86.9%	86.1%

Source: NC Teacher Working Conditions Survey 2010

Case Study Results: Collaborative Culture and Collective Inquiry

The importance of collaboration and collective inquiry cannot be overstated; these themes lie at the heart of the PLT initiative. Throughout the observation cycle, the research team consistently reported a high degree of participation and involvement among PLT members who, over time, had clearly become vested in the success of the group. As the case studies document, the teachers valued their PLT membership for myriad reasons. Some teachers valued the guidance in developing effective lesson plans, some enjoyed being able to share educational resources, whereas others valued being able to receive feedback about their teaching strategies.

In isolated cases, researchers noted that a small number of team members appeared "standoffish" and detached from the main group during the meetings. However, teachers in these high-performing PLTs had, almost universally, developed a powerful sense of camaraderie with their colleagues. They felt safe and supported by the presence of others, eventually leading to an atmosphere of trust that one researcher described as "family." Within this context, the teachers selected for this project demonstrated that they were comfortable sharing their successes and their failures in ways that transcended professional collaboration; teachers were observed recounting their classroom experiences, both positive and negative, as they would to a good friend who understands exactly what they're going through.

Case Study Excerpts:

"All members of the PLT are expected to participate in the discussions held by the group and in sharing good ideas, activities that have worked well, and learning resources that individuals have found to be helpful."

"The facilitator and others in the group shared that it had taken a while to build rapport and to come to appreciate each others' strengths. They went so far as to say they did not like each other very much when they first started working together a few years ago because they had very different styles and methods. They have now come to appreciate and utilize each others' strengths in productive ways."

Based on the analysis of common themes, the net effect of professional collaboration was a reduced feeling of isolation, an awareness of what other teachers were experiencing, and an emotional support network. On a final note, this atmosphere of trust seemed especially valuable to new teachers struggling to adjust to the formidable demands of the profession. Table 16 reports the most commonly occurring themes germane to the teams' collaborative culture from the cross-case analysis, listed in order of frequency.

Table 16
Characteristics #2 and #3: Collaborative Culture & Collective Inquiry into Best Practice

Commonly Appearing Themes
High degree of participation and involvement from PLT members.
Teachers openly valued membership in their PLT.
Evidence of camaraderie and trust among team members.
Teachers felt emotionally supported by group members.
Sharing of material resources (includes personal and outside resources).
Members were comfortable sharing personal difficulties and failures.
Open discussion of teaching strategies and effective approaches.
Sharing success stories about "what worked."
Collective lesson planning.
Other professional support staff attended meeting (IRTs, Literacy Coaches, etc.)
Meeting followed routine format; procedures were well-established.
Group critique of individual teacher's lesson plans.
Discussion of appropriate pace of instruction.
Team contained a mix of experienced and beginning teachers.
Team contained a mix of regular and special education teachers.
Individual teachers received feedback on teaching practices.
Extra support was provided to novice teachers.

Source: WCPSS analysis of PLT case studies.

Did PLT members discuss issues related to student success?

High Five Survey Results

While it could be argued that every educational issue addressed by teachers ultimately pertains to academic achievement and student success, some High Five survey items are more directly relevant than others to discussions of student success. As shown in Table 17:

- The percentage of teachers agreeing that their PLT utilizes a schoolwide "pyramid of interventions" to support struggling students has increased by 11 percentage points over a three year period, moving from 70% in 2007-08 to 81% in 2009-10. (Training on Intervention Alignment contributed to this increase; during this training, PLTs were promoted as a key strategy for supporting students.)

- Research shows that for interventions to be effective, they must be mandatory in nature, rather than invitational in nature (DuFour & Eaker, 1998). To that end, the percentage of teachers agreeing that students in need are required to participate in other learning opportunities, e.g., remediation, has risen 8 percentage points in a three-year period (from 65% in 2007-08 to 73% in 2009-10).

Case Study Excerpts:

"Brainstorming instructional strategies was a part of virtually every meeting. It generally consisted of a free-flowing discussion among all the teachers about what materials and personnel resources they could use to work on building students' skills in the area of their current SMART goal."

"In each case, the particular goal that was chosen by the group was based on needs as identified in pre-assessments as well as the teachers' knowledge about which learning objectives were critical for success later in the year   (i.e., essential standards)."

Table 17
Issues Pertaining to Student Success

Statement	School Year	Strongly Agree	Agree	Disagree	Strongly Disagree	Don't Know/No Response	% Positive	% Negative
We systematically gather evidence concerning instructional strategies.	2007-08	27%	57%	14%	2%	1%	84%	15%
	2008-09	32%	52%	12%	1%	2%	84%	14%
	2009-10	31%	56%	10%	1%	1%	87%	11%
Change from 2007-08 to 2009-10:		4%	-1%	-4%	-1%	0%	3%	-4%
Elementary	2009-10	35%	55%	8%	1%	1%	90%	9%
Middle	2009-10	26%	61%	11%	1%	1%	87%	12%
High	2009-10	29%	55%	13%	2%	1%	84%	14%
We utilize the schoolwide pyramid of interventions.	2007-08	19%	51%	18%	3%	10%	70%	31%
	2008-09	26%	53%	12%	2%	7%	79%	21%
	2009-10	25%	56%	11%	2%	6%	81%	19%
Change from 2007-08 to 2009-10:		6%	5%	-7%	-1%	-4%	11%	-12%
Elementary	2009-10	29%	57%	7%	1%	5%	86%	13%
Middle	2009-10	18%	54%	17%	2%	9%	72%	28%
High	2009-10	24%	55%	14%	2%	5%	79%	21%
We require students in need to participate in other learning opportunities.	2007-08	19%	46%	28%	4%	2%	65%	34%
	2008-09	25%	47%	21%	3%	4%	72%	28%
	2009-10	24%	49%	21%	3%	3%	73%	27%
Change from 2007-08 to 2009-10:		5%	3%	-7%	-1%	1%	8%	-7%
Elementary	2009-10	29%	52%	14%	2%	3%	81%	19%
Middle	2009-10	17%	47%	28%	5%	3%	64%	36%
High	2009-10	20%	45%	28%	4%	2%	65%	34%

Note: 1. The "% Negative" includes all respondents who omitted the question and/or failed to indicate a positive response.
   2. All percentages were rounded to the nearest whole number; consequently, totals may not equal 100% in all cases.
Data Source: WCPSS data analysis of High Five 2007-08, 2008-09, and 2009-10 PLT Surveys

NC Teacher Working Conditions Survey Results

The five items on the North Carolina Teacher Working Conditions Survey that generally related to student success supported the notion that PLTs provided teachers with an opportunity to discuss issues related to student success (see Table 18).

- In all five cases, the percentage of WCPSS teachers agreeing to each item increased from Spring 2008 to Spring 2010.

- As of 2010, over three fourths of WCPSS teachers agreed to all of the items. For example, 83.3% agreed that the faculty has an effective process for making group decisions to solve problems.

Table 18
Issues Related to Student Success: Reponses 2008 and 2010

Question	% Agree	
	2008 WCPSS	**2010 WCPSS**
Teachers are trusted to make sound professional decisions about instruction.	76.4%	85.4%
Teachers are relied upon to make decisions about educational issues.	66.3%	83.9%
The faculty has an effective process for making group decisions to solve problems.	64.9%	76.8%
In this school we take steps to solve problems.	69.4%	83.3%
The faculty and staff have a shared vision.	71.7%	82.5%

Source: NC Teacher Working Conditions Survey 2010

Did teachers modify classroom strategies for students?

High Five Survey Results

On the three High 5 Surveys for 2007-08 through 2009-10, the percentage of positive responses to items about instructional strategies and their use were high initially, but all still increased slightly over time. While increases were evident both between 2007-08 and 2008-09 and between 2008-09 and 2009-10, the PLT policy may have contributed to the continued improvement. The percentage of teachers indicating that they strongly agreed with each item also increased from four to five percentage points over time (see Table 19).

The item most specifically related to whether teachers modified their strategies was worded as: "We utilize increasingly more effective instructional strategies." This item was already quite high in 2007-08, with 88% agreeing. This item showed a modest increase, to 90%, in 2009-10. Respondents who "strongly agreed" with the survey statement increased by four percentage points over the three years.

> **Case Study Excerpt:**
>
> "They create, administer, and use common formative assessment data to direct their own instruction as well as to group all students across classes four days a week for specialized instruction (from students struggling with essential skills to those who have mastered the skills)."

Table 19
PLT Survey Responses to Strategies-and-Interventions-Area Questions, 2007-08 to 2009-10

Statement	School Year	Strongly Agree	Agree	Disagree	Strongly Disagree	Don't Know/No Response	% Positive	% Negative
We have worked to align our instruction with learning outcomes.	2007-08	38%	55%	5%	1%	0%	93%	6%
	2008-09	43%	50%	4%	1%	2%	93%	7%
	2009-10	43%	51%	4%	1%	1%	94%	6%
Change from 2007-08 to 2009-10:		5%	-4%	-1%	0%	1%	1%	0%
Elementary	2009-10	45%	51%	3%	0%	1%	96%	4%
Middle	2009-10	41%	52%	5%	1%	2%	93%	8%
High	2009-10	45%	49%	4%	1%	1%	94%	6%
We are identifying more effective instructional strategies.	2007-08	33%	57%	8%	1%	0%	90%	9%
	2008-09	38%	53%	6%	1%	2%	91%	9%
	2009-10	38%	54%	6%	1%	1%	92%	8%
Change from 2007-08 to 2009-10:		5%	-3%	-2%	0%	1%	2%	-1%
Elementary	2009-10	40%	54%	5%	0%	0%	94%	5%
Middle	2009-10	36%	55%	7%	1%	1%	91%	9%
High	2009-10	39%	53%	7%	1%	1%	92%	9%
We utilize increasingly more effective instructional strategies.	2007-08	29%	59%	10%	1%	1%	88%	12%
	2008-09	34%	55%	7%	1%	3%	89%	11%
	2009-10	33%	57%	7%	1%	2%	90%	10%
Change from 2007-08 to 2009-10:		4%	-2%	-3%	0%	1%	2%	-2%
Elementary	2009-10	35%	57%	6%	0%	1%	92%	7%
Middle	2009-10	29%	60%	8%	1%	2%	89%	11%
High	2009-10	33%	55%	9%	1%	1%	88%	11%

Note: 1. The "% Negative" includes all respondents who omitted the question and/or failed to indicate a positive response.
         2. All percentages were rounded to the nearest whole number; consequently, totals may not equal 100% in all cases.
Data Source: WCPSS data analysis of High Five 2007-08, 2008-09, and 2009-10 PLT Surveys

Focus on Results

The fourth characteristic is a focus on results, and is tightly linked to the common formative assessments teachers are expected to be using to assess student progress. More specifically:

- Teachers assess effectiveness of teaching based on students' results.
- Teachers subject their own instructional strategies and practices to assessment.
- Team members share results of common formative assessments among themselves.

Did teachers increase their understanding of assessments and standards?

High Five Survey Results

A number of High Five PLT Survey questions addressed assessments and standards, but items addressed use more than understanding. Since use generally relates to understanding, we have included the results here. Case studies also provide evidence that teachers developed and utilized assessment data based on North Carolina curriculum standards; examples are shown in text boxes. Some teams spent extensive amounts of their team time developing or interpreting common formative assessments or other assessment results.

Assessments:
As shown in Table 20, most WCPSS teachers indicate they have developed common formative assessments and examined the results since at least 2007-08. The percentage of teachers who agreed on these items increased over time as well, which does imply at least that a greater percentage of teachers understood their value and appropriate use.

Elementary teachers, compared with secondary teachers, were more likely to use common formative assessments to identify students who need additional support (88% versus 78-79% for middle and high school teachers) and to use assessment results to evaluate their instructional practices (elementary teachers at 84% with 77% for middle and high school teachers).

Case Study Excerpts:

"They shared their class's results on Blue Diamond assessments and discussed strategies to help their students learn the concepts that they had not mastered. They also shared how they felt about their students not performing well on specific concepts, which is an evidence of their collaborative spirit."

"The teachers collectively created a schedule of dates to share their student pre-assessment data, midpoint data, and post assessment data. The observer noted that all of the members were eager to share their results and discuss the successes from their individual students."

"The vast majority of their meeting time was usually spent engaged in one of two activities: Working with data, and brainstorming about instructional 'next steps.' They were very comfortable with data and using assessment information, and they typically had collected common assessment information on which to base their discussions."

Table 20
PLT Survey Responses to Assessment-Area Questions, 2007-08 to 2009-10

Statement	School Year	Strongly Agree	Agree	Disagree	Strongly Disagree	Don't Know/No Response	% Positive	% Negative
We have developed common formative assessments using different approaches.	2007-08	28%	53%	16%	2%	1%	81%	19%
	2008-09	32%	49%	14%	2%	3%	81%	19%
	2009-10	32%	52%	12%	2%	2%	84%	16%
Change from 2007-08 to 2009-10:		4%	-1%	-4%	0%	1%	3%	-3%
Elementary	2009-10	32%	54%	11%	1%	2%	86%	14%
Middle	2009-10	31%	51%	13%	2%	2%	82%	17%
High	2009-10	35%	49%	12%	2%	2%	84%	16%
We examine results to identify students who need additional support.	2007-08	25%	54%	19%	2%	1%	79%	22%
	2008-09	30%	50%	15%	2%	4%	80%	21%
	2009-10	30%	53%	13%	2%	2%	83%	17%
Change from 2007-08 to 2009-10:		5%	-1%	-6%	0%	1%	4%	-5%
Elementary	2009-10	34%	54%	9%	1%	2%	88%	12%
Middle	2009-10	23%	55%	17%	3%	3%	78%	23%
High	2009-10	27%	52%	17%	2%	2%	79%	21%
We examine results to evaluate our instructional practices.	2007-08	23%	53%	21%	2%	1%	76%	24%
	2008-09	27%	50%	17%	2%	4%	77%	23%
	2009-10	26%	55%	15%	2%	2%	81%	19%
Change from 2007-08 to 2009-10:		3%	2%	-6%	0%	1%	5%	-5%
Elementary	2009-10	28%	56%	13%	1%	2%	84%	16%
Middle	2009-10	21%	56%	18%	2%	3%	77%	23%
High	2009-10	25%	52%	18%	2%	2%	77%	22%

Note: 1. The "% Negative" includes all respondents who omitted the question and/or failed to indicate a positive response.
         2. All percentages were rounded to the nearest whole number; consequently, totals may not equal 100% in all cases.
Data Source: WCPSS data analysis of High Five 2007-08, 2008-09, and 2009-10 PLT Surveys

Standards: In terms of standards, High Five PLT survey results from 2010 indicate high percentages of teachers have identified essential learning outcomes based on the NC Standard Course of Study (93%), used standards to assess their students (88%), used SMART goals as a standard for success with students (91%) and believe their students can master these outcomes (84%). Use of team-adopted standards and SMART goals did increase between 2008-09 and 2009-10, suggesting the policy change may have had a positive impact. (The other two items did not increase.)

In 2009-10, when examined by level, the elementary teachers returned the highest level of agreement (90%) when asked if team-adopted standards were used to assess learning, followed by the high (88%) and middle (84%) school teachers. Elementary teachers were also more confident that

> **Case Study Excerpts:**
>
> "As a team they have used the PLT time to develop a pre-assessment for each unit which enables them to move students into enrichment activities rather than be instructed in material they have already mastered."
>
> "Each teacher takes a subgroup of students for 45 minutes four days a week for either enrichment or additional instruction (two days for reading and two for mathematics). Group sizes are larger for the more advanced students and teacher assistants are placed with the groups which include struggling students."

their students could master essential learning outcomes (88%), compared to middle (83%) or high (79%) school teachers.

Overall, high percentages of teachers indicate they utilize assessments and standards, with elementary teachers being the most positive in their responses. The data showing that approximately 17% of middle school teachers and 22% of high school teachers do not believe their students can master the targeted outcomes is cause for concern.

Table 21
PLT Survey Responses to Standards Questions, 2007-08 to 2009-10

Statement	School Year	Strongly Agree	Agree	Disagree	Strongly Disagree	Don't Know/No Response	% Positive	% Negative
We have identified essential learning outcomes.	2007-08	35%	58%	5%	1%	1%	93%	7%
	2008-09	41%	52%	4%	1%	1%	93%	6%
	2009-10	41%	52%	4%	2%	1%	93%	7%
Change from 2007-08 to 2009-10:		6%	-6%	-1%	1%	0%	0%	0%
Elementary	2009-10	42%	52%	4%	1%	1%	94%	6%
Middle	2009-10	37%	56%	4%	2%	1%	93%	7%
High	2009-10	44%	50%	4%	1%	1%	94%	6%
We believe our students can master these outcomes.	2007-08	24%	60%	14%	2%	1%	84%	17%
	2008-09	28%	58%	12%	2%	1%	86%	15%
	2009-10	26%	58%	13%	2%	1%	84%	16%
Change from 2007-08 to 2009-10:		2%	-2%	-1%	0%	0%	0%	-1%
Elementary	2009-10	29%	59%	11%	1%	1%	88%	13%
Middle	2009-10	23%	60%	14%	2%	1%	83%	17%
High	2009-10	22%	57%	18%	3%	1%	79%	22%
We use team-adopted standards to assess learning.	2007-08	32%	54%	12%	2%	1%	86%	15%
	2008-09	36%	50%	10%	2%	2%	86%	14%
	2009-10	35%	53%	9%	2%	2%	88%	13%
Change from 2007-08 to 2009-10:		3%	-1%	-3%	0%	1%	2%	-2%
Elementary	2009-10	37%	53%	7%	1%	1%	90%	9%
Middle	2009-10	29%	55%	12%	3%	2%	84%	17%
High	2009-10	38%	50%	9%	2%	1%	88%	12%
We have adopted SMART goals that we are working to achieve.	2007-08	29%	55%	12%	2%	2%	84%	16%
	2008-09	35%	51%	10%	1%	3%	86%	14%
	2009-10	39%	52%	6%	1%	1%	91%	8%
Change from 2007-08 to 2009-10:		10%	-3%	-6%	-1%	-1%	7%	-8%
Elementary	2009-10	42%	51%	5%	1%	1%	93%	7%
Middle	2009-10	32%	57%	9%	1%	1%	89%	11%
High	2009-10	41%	51%	6%	1%	1%	92%	8%

Note: 1. The "% Negative" includes all respondents who omitted the question and/or failed to indicate a positive response.
          2. All percentages were rounded to the nearest whole number; consequently, totals may not equal 100% in all cases.
Data Source: WCPSS data analysis of High Five 2007-08, 2008-09, and 2009-10 PLT Surveys

Did teachers increase their skills in using data?

High Five Survey Results

As shown in Table 22, teachers definitely increased their use of SMART goals between 2007-08 and 2009-10, which are data-based ways to monitor progress. There was a seven to ten point increase in the percentage of positive responses regarding the use of SMART goals. The data suggest that more PLTs are adopting the practice of establishing SMART goals (up seven percentage points), and that PLTs are making a more focused effort to ensure that their SMART goals are aligned with those established for their school (up ten percentage points). When asked if their team's SMART goals were aligned with their school's goals, elementary teachers expressed the highest level of positive agreement (93%), followed by high (91%) and middle (86%) school teachers.

> **Case Study Excerpt:**
>
> "The team routinely reviewed assessment results to identify the learning objectives on which their students – as a grade or as classroom groups – performed poorly. Looking over the distracters on Blue Diamond assessments, for example, the teachers speculated about what could have caused students to choose incorrect answers. This led to differentiated compilation of additional problems, based on individual students' performances."

Table 22
WCPSS Teachers' Use of SMART Goals

Statement	School Year	Strongly Agree	Agree	Disagree	Strongly Disagree	Don't Know/No Response	% Positive	% Negative
We have adopted SMART goals that we are working to achieve.	2007-08	29%	55%	12%	2%	2%	84%	16%
	2008-09	35%	51%	10%	1%	3%	86%	14%
	2009-10	39%	52%	6%	1%	1%	91%	8%
Change from 2007-08 to 2009-10:		10%	-3%	-6%	-1%	-1%	7%	-8%
Elementary	2009-10	42%	51%	5%	1%	1%	93%	7%
Middle	2009-10	32%	57%	9%	1%	1%	89%	11%
High	2009-10	41%	51%	6%	1%	1%	92%	8%
Our SMART goals are aligned to our school's SMART goals.	2007-08	29%	52%	11%	2%	6%	81%	19%
	2008-09	35%	49%	9%	1%	7%	84%	17%
	2009-10	40%	51%	5%	1%	3%	91%	9%
Change from 2007-08 to 2009-10:		11%	-1%	-6%	-1%	-3%	10%	-10%
Elementary	2009-10	43%	50%	4%	1%	2%	93%	7%
Middle	2009-10	33%	53%	9%	1%	4%	86%	14%
High	2009-10	42%	49%	5%	1%	3%	91%	9%

Note: 1. The "% Negative" includes all respondents who omitted the question and/or failed to indicate a positive response.
         2. All percentages were rounded to the nearest whole number; consequently, totals may not equal 100% in all cases.
Data Source: WCPSS data analysis of High Five 2007-08, 2008-09, and 2009-10 PLT Surveys

Case Study Results: Focus on Results

A well-established formative assessment program was evident in most of the high-performing PLTs chosen for this research project; clearly, this is a crucial and essential element for success. Where applicable, the teachers used Blue Diamond, internet-based testing resources, team-developed common assessments, or a combination of all three. Universally, all teams attempted to use data to improve instruction – regardless of the teachers' level of data understanding (which tended to vary widely).

There are, however, certain inherent nuances in using data to improve instruction – making some PLTs observed stronger than others in terms of this characteristic. The PLTs that used data most effectively were the ones who tended to adhere to the following practices:

1. The common formative assessments were administered on a frequent basis, and the data were quickly used to modify classroom instruction. In these cases it was common for the teachers to invest time looking over the distracters and speculating on what caused the students to choose the incorrect responses. Once those weaknesses were identified, the students' misconceptions could be addressed.

2. Results of the common formative assessments were used to differentiate instruction, which usually took the form of shifting students into various groups. Consequently, struggling students could be targeted for remediation, whereas students who had already mastered the concepts could be accelerated with enrichment activities. Research emphasizes re-teaching those who have not mastered a skill and enriching the rest of the students (DuFour et al., 2007).

3. Some teachers on the PLT were at least moderately proficient in using data. In these cases, the teachers knew what types of Blue Diamond reports could be generated, how to determine which items were most often missed, and which distracters were most effective in luring students away from the correct answer. These were the teachers whose knowledge and use of data went well beyond the ubiquitous "class average." The fact that even high performing PLT teams showed variation in their understanding and use of data suggests even greater variability is likely across the districts' other PLTs.

Table 23 reports the most commonly occurring themes pertaining to "a focus on results" from the cross-case analysis.

> **Case Study Excerpts:**
>
> "The students took a pretest and were placed in groups with students who had achieved similarly on their assessment. The teachers discussed the students' results in general or specific students and helped each other organize their groups. They also created groups across classes when necessary (typically for the highest and/or lowest performing students), so that the group sizes would be consistent."
>
> "During one of the earlier observed meetings, the teachers organized their plans to use these results for EOG review activities for the weeks prior to testing. Over the course of the next few meetings they continued compiling assessment results and activities, frequently consulting the curriculum and the calendar in support of the planned EOG review. They were aware of the correlations between performance on Blue Diamond assessments and success on EOGs, and explained to this observer that they bring this data to parent conferences and SST meetings."

Table 23
Characteristics #4: Focus on Results

Commonly Appearing Themes
Evidence of well-established common formative assessment program.
Examination of student work to set new goals and refocus instruction.
Frequently discussed Blue Diamond data.
Used formative assessment data to modify instruction.
PLT has worked together to establish SMART goals.
Instruction was focused on EOG preparation.
Team members seemed comfortable using data.

Source: WCPSS analysis of PLT case studies.

Supportive and Shared Leadership

The fifth characteristic one would expect to find within a high-performing PLT is supportive and shared leadership. More specifically:

- Leader facilitates the learning of all staff members.
- He/She is also a learner.
- Principal shares leadership among formal and informal leaders.
- He/She views teachers as peers and colleagues.
- Leaders lead by following and by serving.

High Five Survey Results

The High Five Surveys queried teachers about the level of feedback and support they perceive from their school's leadership. Over the past three years, these data have remained relatively static. The percentage of teachers expressing positive agreement to this survey item has remained frozen at 76% from 2008-09 to 2009-10, despite the implementation of Board Policy 3610 – which demonstrated an unprecedented level of districtwide support for the PLT concept. In short, approximately three-fourths of the teachers agreed that they were receiving appropriate support from their school's leadership. Conversely, however, these same data also suggest that one in four teachers do not believe this to be the case – suggesting that improvement efforts should be focused in this area.

Table 24 documents the High Five Survey trends over the past three years. While these data focus on administrative leadership at the building level, the case study results which follow are germane to the leadership structures currently in place within high-performing PLTs. These PLTs showed some variance in leadership styles, but it is important to note that the individual PLTs are led by teachers, not by principals. Hence, the teachers' perceptions of leadership within the case studies differ from those documented by the High Five Surveys.

Table 24
WCPSS Teachers' Feedback and Support from Leadership

Statement	School Year	Strongly Agree	Agree	Disagree	Strongly Disagree	Don't Know/No Response	% Positive	% Negative
We receive feedback and support from our leadership.	2007-08	18%	54%	21%	5%	1%	72%	27%
	2008-09	23%	53%	18%	3%	3%	76%	24%
	2009-10	21%	55%	17%	4%	2%	76%	23%
Change from 2007-08 to 2009-10:		3%	1%	-4%	-1%	1%	4%	-4%
Elementary	2009-10	24%	57%	14%	3%	2%	81%	19%
Middle	2009-10	16%	55%	21%	5%	2%	71%	28%
High	2009-10	19%	53%	21%	5%	2%	72%	28%

Note: 1. The "% Negative" includes all respondents who omitted the question and/or failed to indicate a positive response.
        2. All percentages were rounded to the nearest whole number; consequently, totals may not equal 100% in all cases.
Data Source: WCPSS data analysis of High Five 2007-08, 2008-09, and 2009-10 PLT Surveys

Case Study Results: Supportive and Shared Leadership

There was great variance regarding this theme, with little consistency from group to group. In approximately 25% of the cases, the group had one dominant leader; one researcher reported that the PLT meeting was canceled on a day this teacher could not attend. A number of teams had co-leaders, whereas on other teams the duties of the facilitator rotated among its members. This was especially notable in the year-round schools; the leader must track in and out like everyone else, and someone has to take over in his or her absence.

Regardless of the strength and style of the leader, all researchers reported that the other team members felt comfortable sharing and discussing. True, some teams were more likely to defer to the leader than others when a consensus was lacking, but at the end of the day everyone felt that their voice could be heard. Table 25 reports the most commonly occurring "shared leadership" themes from the cross-case analysis:

Case Study Excerpts:

"The leadership of the PLT was shared among the members. While there was a facilitator and a recorder for the group, it was clear through conversation and through sharing materials that leadership was a shared function. At some point during the observed meetings, every member of the group felt free to bring up a topic that was of particular importance to him/her."

"While there was one defined group leader, the group functioned quite well when she was tracked out. The group members divided the leadership role in the leader's absence. The review of the weekly meeting agendas reflected *shared leadership*. There were different team members assigned to different roles each week."

Table 25
Characteristics #5: Supportive and Shared Leadership

Commonly Appearing Themes
Leadership responsibility rotates among team members.
Team has two designated co-leaders.
All team members may contribute agenda items.
Single PLT leader is clearly more dominant.

Source: WCPSS analysis of PLT case studies

Supportive Conditions

The sixth and final theme involves supportive conditions. More specifically:

- PLT members have time to meet.
- They have a place to meet.
- Students are guaranteed to receive additional time for support for learning.

DID TEACHERS SHOW INCREASED JOB SATISFACTION?

High Five Survey Results

The most recent 2009-10 High 5 PLT Survey items provide strong evidence that PLT collaboration has led to increased job satisfaction (see Table 26).

- Nearly all teachers (92%) believe that PLTs can provide a more supportive environment for teachers.

- Somewhat fewer – but still the vast majority – believe that PLTs make them a better teacher (80%), and that their students are learning more because of their PLT work (78%).

- Just over two-thirds (68%) believe PLTs will save them time overall. Although time savings is not a primary objective of PLT work, it could be related to teacher satisfaction overall.

Small continuous increases were seen for two of the four items over time. More teachers felt they were a better teacher because of their work in their PLT, and more teachers believed their students were learning more because of their work in PLTs. Again, some influence of the policy is evident, with the importance of the PLT

> **Case Study Excerpts:**
>
> "We are family. I know that they (the team members) have my back. Still they let me go in my room and teach without interference."
>
> "The group was very collegial and appeared to be comfortable with each other. They spent very little time off-task, taking full advantage of their one hour of time each Wednesday afternoon. They seemed very motivated, excited about their work, and genuinely concerned about helping as many students as possible be successful."

elevated based on the new policy. Here again, elementary teachers were most likely to agree or strongly agree that they were a better teacher because of their PLT work, that their students were learning more because of the PLT work, and that time spent with their PLT would save them time overall.

Generally, new teachers (1-2 years of experience) have more positive attitudes towards PLT work than veteran teachers (20+ years of experience) (Jackl, 2010). Since job satisfaction in the early years can influence teacher retention, this suggests PLTs may provide an important support for beginning teachers.

Case Study Excerpt:

"For lack of a better term, the teachers collaborated so successfully because they sincerely liked each other. During the April observations, the teachers often expressed concern that their team would be divided the following year. As one teacher noted, "we've got a good thing going here, and we want to keep it." It is reasonable to conclude that every teacher had become emotionally vested in the success of his or her teammates, as well as the performance of the group as a whole… *E Pluribus Unum."*

Table 26
PLT Survey Responses to Impact-Area Questions, 2007-08 to 2009-10

Statement	School Year	Strongly Agree	Agree	Disagree	Strongly Disagree	Don't Know/No Response	% Positive	% Negative
I am a better teacher because of my work with my PLT.	2007-08	22%	55%	17%	5%	1%	77%	23%
	2008-09	27%	52%	14%	4%	2%	79%	20%
	2009-10	29%	51%	15%	4%	2%	80%	21%
Change from 2007-08 to 2009-10:		7%	-4%	-2%	-1%	1%	3%	-2%
Elementary	2009-10	29%	54%	13%	3%	1%	83%	17%
Middle	2009-10	27%	52%	15%	5%	1%	79%	21%
High	2009-10	32%	45%	16%	6%	2%	77%	24%
My students are learning more because of my work with my PLT.	2007-08	20%	55%	20%	4%	1%	75%	25%
	2008-09	25%	51%	18%	3%	3%	76%	24%
	2009-10	27%	51%	17%	4%	2%	78%	23%
Change from 2007-08 to 2009-10:		7%	-4%	-3%	0%	1%	3%	-2%
Elementary	2009-10	28%	53%	15%	3%	1%	81%	19%
Middle	2009-10	24%	51%	18%	5%	1%	75%	24%
High	2009-10	28%	45%	20%	5%	2%	73%	27%
PLTs can provide a more supportive environment for teachers.	2007-08	34%	58%	6%	2%	0%	92%	8%
	2008-09	39%	53%	5%	2%	2%	92%	9%
	2009-10	40%	52%	5%	2%	1%	92%	8%
Change from 2007-08 to 2009-10:		6%	-6%	-1%	0%	1%	0%	0%
Elementary	2009-10	41%	52%	5%	1%	1%	93%	7%
Middle	2009-10	36%	55%	5%	3%	1%	91%	9%
High	2009-10	43%	48%	5%	2%	1%	91%	8%
Time spent with my PLT will save me time overall.	2007-08	21%	47%	24%	8%	1%	68%	33%
	2008-09	25%	44%	22%	7%	3%	69%	32%
	2009-10	27%	41%	22%	8%	2%	68%	32%
Change from 2007-08 to 2009-10:		6%	-6%	-2%	0%	1%	0%	-1%
Elementary	2009-10	27%	43%	22%	7%	1%	70%	30%
Middle	2009-10	24%	43%	21%	9%	1%	67%	31%
High	2009-10	29%	36%	23%	11%	1%	65%	35%

Note: 1. The "% Negative" includes all respondents who omitted the question and/or failed to indicate a positive response.
         2. All percentages were rounded to the nearest whole number; consequently, totals may not equal 100% in all cases.
Data Source: WCPSS data analysis of High Five 2007-08, 2008-09, and 2009-10 PLT

Teacher Working Conditions Survey Results

One strong indicator of teachers' job satisfaction is the Teacher Working Conditions Survey. In 2008, only 77.6% of WCPSS teachers expressed positive agreement when asked if their school is a good place to work and learn. Two years later, in 2010, 85.5% expressed positive agreement – an increase of 7.9 percentage points in just two years.

Table 27
Percentage of Teachers Agreeing Their School is a Good Place to Work and Learn

Question	% Agree	
	2008 WCPSS	**2010 WCPSS**
Overall, my school is a good place to work and learn.	77.6%	85.5%

Source: NC Teacher Working Conditions Survey 2010

WAS THERE AN INCREASE IN TEACHER RETENTION?

Holistically speaking, the percentage of teachers leaving the district in 2009-10 has fallen by 0.73 percentage points since the 2007-08 school year (see Table 28). More specifically, the turnover percentage was 10.3 in 2007-08 before peaking at 11% in 2008-09; the most recent data from 2009-10 show a 9.6% attrition rate. It is also worth noting that elementary school teachers have been the least likely to leave the district, having the consistently lowest turnover percentage compared to middle and high school teachers across all three years.

It would be unrealistic to credit PLT work alone with this decline, as diverse other factors (e.g., the economic downturn) are also in play (see Figure 2). However, the data do show that teachers are reporting an increased level of job satisfaction, along with 92% of High Five survey respondents reporting that PLT implementation has fostered a more supportive environment for teachers (discussed above).

> **Case Study Excerpts:**
>
> "Members of the group value their participation in the PLT. One teacher—a beginning teacher—stated that he would not have been nearly so successful without the support of the members of his PLT. They provided formal guidance in his selection of materials, helped him stay on pace with his classes, and provided informal camaraderie as he adapted to his new responsibilities."
>
> "I appreciate our PLT time because it has made me a better teacher. Not only that, I value the time because we use it to develop formative assessments that we all will use, share and discuss student results, coordinate instructional activities, and receive feedback from each other. The feedback helps me to know if I need to change how I am teaching something. "

Table 28
WCPSS Teacher Turnover Percentages 2007-2010

Grade	2007-08			2008-09			2009-10			2007-2010
	n	n left WCPSS	% turnover	n total	n left WCPSS	% turnover	n total	n left WCPSS	% turnover	Difference
Elementary	4,520	459	10.2%	4,827	508	10.5%	4,893	417	8.5%	-1.6%
High	2,295	252	11.0%	2,387	261	10.9%	2,416	286	11.8%	0.9%
Middle	2,098	211	10.1%	2,204	267	12.1%	2,268	218	9.6%	-0.4%
Total	8,913	922	10.3%	9,418	1,036	**11.0%**	9,577	921	9.6%	-0.7%

Source: N.C. Department of Public Instruction

Case Study Results: Supportive Conditions

Clearly, all PLTs did have a time and place to meet. Two
observers noted that the PLTs met with other teams in a common
area, such as a cafeteria or library. In most cases, however, the
PLT met in a classroom where it was easier for the teachers to
access educational resources. The research team reported
varying levels of administrator involvement. Some
acknowledged that the administration had been helpful in
establishing the PLT structure before turning it over to the
teachers, whereas other researchers noted that administrators
sometimes attended PLT meetings and/or "floated" from
meeting to meeting. Only one observer reported that the
teachers were disappointed with the level of support they
received from building administrators. Table 29 documents the
most commonly found theme in the cross-case analysis:

> **Case Study Excerpt:**
>
> "The PLT went on to explain that
> they believe a large part of their
> success begins with the
> leadership at their school.
> According to the PLT, the
> leadership at the school has
> worked hard to ensure that their
> PLT has supportive conditions in
> which they have a presumably
> well designed framework in place
> for use in developing and sharing
> their SMART Goals, curriculum
> maps and meeting minutes."

Table 29
Characteristics #6: Supportive Conditions

Commonly Appearing Theme
Clear evidence of strong administrative support.

Source: WCPSS analysis of PLT case studies.

STUDENT IMPACT

DID SCHOOLS CITE SUCCESS CASES FOR PLTs, GRADE LEVELS, AND STUDENTS?

There are many examples of PLT success stories from diverse sources, and anecdotal evidence
of the positive impact can be found virtually anywhere PLTs are discussed. To support and
encourage quality PLT work, the Curriculum and Instruction department recently began
recognizing high-performing PLTs at Board meetings. Three such examples have included:

- The *Earth Science PLT* at Millbrook High School explained how they used their PLT time to
  write common formative assessments, develop a pyramid of interventions, plan for
  remediation, and ways to increase parental contact. They reported that they had already
  reduced the failure rate of Academic Earth Science from 23.4% to 19.6%, and are actively
  working on a plan for continued improvement.

- The *Algebra 1 PLT* at Sanderson High School reported proficiency gains across all No Child Left Behind (NCLB) subgroups, and showed Z-scores reflecting an upward trend in their subject's High School Effectiveness Index. The PLT's Z-scores increased from 0.73 in 2005-06 to 1.81 in 2006-07 – the first year they began implementing PLTs. Since that time, their Effectiveness Index has risen to 2.36, and the teachers credited PLT work for this improvement.

- The *First Grade PLT* at Northwoods Elementary used PLT time to establish SMART goals targeting their students' greatest areas of need: phonemic awareness, vocabulary development, and sight word recognition/spelling. Using data to carefully monitor their students' progress, by the end of the year the percentage of their students reading below grade level fell from 32.9% to 24.4%, and the percentage of students writing below grade level fell from 85.9% to 46.3%.

Other evidence of PLT success stories was obtained from the Spring 2010 early release survey, in which principals were invited to share some of their faculties' experiences with PLT work. The principals responded by volunteering examples of successful implementation and positive impact; a sampling of those quotes from elementary, middle, and high school principals are listed in Table 30. Across the examples, principals cited improved alignment of instruction, instruction more specifically tied to student needs, and improved monitoring of student progress. Increases in Blue Diamond and End of Course (EOC) scores were specifically mentioned.

The Early Release Survey in June 2010 also provided data on the perceived benefits and challenges of having district-wide, protected PLT time. Some of the more revealing quotations from all grade levels have been reported in Tables 31 (benefits) and 32 (challenges). Principals noted that having a dedicated time made consistent participation feasible and allowed specialists to attend meetings and participate more easily. Some principals believed it improved their ability to monitor and participate in PLTs, while others saw some aspects of the common time as a disadvantage.   Principals also noted that the collaboration was valuable for planning and meeting the needs of students (thereby impacting student achievement).

Additional evidence comes from the 12 schools across WCPSS (four per level) identified as strongest in closing achievement gaps over time. All cited PLTs as playing a critical role in their success (WCPSS, 2010). These teams cited the importance of PLTs, prevention and intervention, and relationships in closing achievement gaps. The collaboration in PLTs was seen as critical to establishing more effective instruction, assessment, interventions, and enrichment and in monitoring the success of these efforts more frequently than in the past. One school cited improved Blue Diamond results due to their efforts; another was able to establish personal education plans for each student. One high school indicated more "non-traditional" students were able to be placed in more rigorous classes as a result of their efforts in PLTs.

Table 30
WCPSS Principals Cite PLT Success Stories

	School Level	Quotes
Please provide one example of the impact of PLT work on staff or student achievement (e.g., a grade level, a specific PLT, or an individual student).	Elementary	"We have had specific improvements in vertical alignment through our vertical PLTs (essential vocabulary list developed K-5 in science)." "Our second grade team has isolated key skills in writing, taught and evaluated those skills together and provided targeted instruction to each student based on those evaluations. Each team member attended a WCPSS writing workshop and brought back ideas to the team, which they incorporated into their instruction." "PLTs provide us with specific data on individual students to inform staff if a Universal Screening is needed, if progress monitoring is working, as well as if other intervention/remediation/acceleration strategies are having a positive impact on the student." "Essential Learning Outcomes and Essential Questions have been collaboratively created, posted and used in all classrooms. This has allowed for all Instructional Support Staff (AG, Sp. Ed., Literacy, ESL) to align their instruction with instruction occurring within the Regular ed. classrooms."
	Middle	"We have seen improvements in Blue Diamond scores, and I believe this is due, in part, to the sharing of best practices in PLTs." "The administrative participation in the daily performance of all students - since we all had common time and we met in a common location. The administrative team was able to hear and learn about individual students who we could then work with and communicate with regarding the importance of their grades and work habits." "Our PLTs have benefited both teachers and students. Teachers have shared their concerns, successes, areas of expertise, and best practices. Conversations are affirming and cause teachers to really think about instructional practice. As a result, instruction in high functioning PLTs is much leaner and specific to student needs."
	High	"Our PLT work has allowed us to align our curriculum and develop common assessments to monitor our students' learning." "Many of our EOC results for 1st semester were increases over previous scores. Consistent time and attention to common planning and assessment are keys." "Our English PLTs have monitored the writing of students struggling in the course. As a result of their work, students have been more engaged in class and have improved on the first semester English I EOC test."

Source: WCPSS analysis of June 2010 Early Release Principals' Survey.

Table 31
Principals Report <u>Benefits</u> of Wake Wednesdays PLT Time

	School Level	Quotes
Please describe any positive impact of having consistent dedicated time for PLT work (Wake Wednesdays) this year.	Elementary	"The teachers absolutely love the time they have to collaborate together. This dedicated time allows them to get together as a team and discuss what's really going on with the students and to devise and talk about those best teaching practices that are going to make the difference. They really know all their students and what is needed to push them to the next level." "Teams are functioning better and intervention teachers are able to attend due to common protected time. The time is powerful for teachers and student achievement has risen due to the focused consistent time." "We do not have enough teacher assistants to plan PLTs during the day. Having a consistent dedicated time allows collaboration between the teachers and the specialists in the building. It also allows the specialists the time to plan with others." "Our teams were able to work for an extended period of time without interruptions and without other meeting obligations. This uninterrupted time allows teachers to really focus on student achievement data and instruction."
	Middle	"The benefit of having this consistent time for teachers to collaborate cannot be quantified. It has ensured 100% participation by the staff as it is an expectation that everyone will participate. Without this release time there would be no way to ensure that every teacher will participate. The teachers have bought into the concept of collaboration and value the time. It has definitely impacted student achievement." "The dedicated time has been invaluable to our staff. With the budget and staff cuts last year it was impossible to design a master schedule that included PLT time during the day (vertical/subject)." "Having the dedicated time and universal expectations has set the tone for the meetings and helped teachers feel empowered and committed to the process. As a result, I think that student achievement will be impacted."
	High	"This time has been very valuable. It has allowed our PLTs to have uninterrupted, unrushed time to collaborate. It has also allowed our singletons an opportunity to meet together at different schools (band, CTE, dance, drama, arts) to actually PLT on a regular basis." "We, for the first time, have been able to monitor the PLTs and participate in the discussions. When they are meeting at different times, it is impossible to manage and be regularly involved in the discussions." "The impact is not measurable in terms of morale and team collaboration - off the charts. The measurable impact is that data clearly show improved performance, lower drop-out rate, and higher graduation rate."

Source: WCPSS analysis of June 2010 Early Release Principals' Survey**s**

Table 32
Principals Report <u>Challenges</u> of Wake Wednesdays PLT Time

	School Level	Quotes
Please describe any challenges or negative impact of having consistent dedicated time for PLT work (Wake Wednesdays) this year.	Elementary	"At a year-round school, you do not have all members of your PLT together every Wednesday." "The addition of 10 minutes to the school day is not an easy increment with which to work. Ten minutes a day really does not equate to the time lost in a large chunk of an hour." "Administrators being able to support each PLT on a consistent basis was hard when they all met at the same time. Due to varying levels of need, some PLTs got more attention than others."
	Middle	"Supervising students who had to stay for practices or games was a challenge, but we were able to adapt by asking teacher assistants to run study halls for those student athletes." "Changing the middle school student's schedule in the middle of the week really throws them off behaviorally. Our discipline referrals are highest on Wednesdays."
	High	"Interruption of after-school programs, tutoring, sports, arts, and discipline programs that would normally be held immediately after school. In addition, it is difficult for the principal to attend all of the PLT's and keep abreast of the work when they all meet at the same time. Also, having staff available to monitor "study halls" for students who had activities after PLT time." "The change in schedule and shorter blocks on those days was a challenge." "Selecting one day of the week did not allow for make-up meeting if a department member was absent."

Source: WCPSS analysis of June 2010 Early Release Principals' Survey

While such examples are noteworthy, the case studies reprinted in the appendix of this report provide the most detailed and comprehensive picture of highly effective PLT members successfully working together to improve student outcomes. Data from these observations were used earlier in this report to demonstrate how the high-performing PLTs selected for the observation sequence typically reflect the six characteristics of effective PLTs identified by WCPSS.

It is also useful to examine the themes appearing throughout the case studies of high-performing PLTs without immediately attempting to classify and/or organize those threads by relevant characteristic. Table 33 reports the threads most commonly appearing within the series of case studies by order of frequency, regardless of themes. For example, the most common thread connecting the different case studies was the high degree of participation and involvement from PLT members. Reviewing this list of commonly appearing themes supports the case that many PLTs are, in fact, operating successfully within the district and that the professional collaboration is producing desirable outcomes. These themes relate more to what a successful PLT does than the results; this can be useful to teams that are not yet high performing.

Table 33
Most Common Themes Appearing in PLT Case Studies

Theme
High degree of participation and involvement from PLT members.
Team documents were stored on shared hard drive and were accessible to all.
Evidence of camaraderie and trust among team members.
Teachers felt emotionally supported by group members.
Teachers openly valued membership in their PLT.
Engagement/enrichment of high-performing students was not discussed.
Evidence of well-established common formative assessment program.
PLT meeting time is used efficiently.
Sharing of material resources (includes personal and outside resources).
Team used technology for communication among team members.
Members were comfortable sharing personal difficulties and failures.
Collective lesson planning.
Examination of student work to set new goals and refocus instruction.
Frequently discussed Blue Diamond data.
Group discussion of team goals and objectives.
Meeting followed routine format; procedures were well-established.
Open discussion of teaching strategies and effective approaches.
Other professional support staff attended meeting (IRTs, Literacy Coaches, etc.)
Sharing success stories about "what worked."
Teachers habitually schedule additional PLT meetings at other times.

Source: WCPSS analysis of PLT case studies.

Finally, it is notable that the 12 schools across WCPSS (four per level) identified as strongest in closing achievement gaps over time all cited PLTs as playing a critical role in their success (WCPSS, 2010). These teams cited the importance of PLTs, prevention and intervention, and relationships in closing achievement gaps. The collaboration in PLTs was seen as critical to

establishing more effective instruction, assessment, interventions, and enrichment and in monitoring the success of these efforts more frequently than in the past. One school cited improved Blue Diamond results due to their efforts; another was able to establish personal education plans for each student. One high school indicated more "non-traditional" students were able to be placed in more rigorous classes as a result of their efforts in PLTs.

EXPLORATORY ANALYSES

DID THE PERCENTAGE OF FAILING GRADES DECLINE IN GRADE 9?

Grades are one measure of students' success, and they impact students' future course taking, likelihood of graduating, and college choices. This measure is more subjective than some others, in that grades have traditionally mixed the level of student knowledge and effort into one grade, and different teachers create their own standards for which aspects of the work count and to what extent. It is hoped that PLT collaboration leads to more common grading standards, as teachers develop and use common formative assessments, discuss issues such as grading and instruction and student progress and needs. It is further expected that student grades will improve as they are better supported on an ongoing basis and more engaged in their work. However, the full impact of these changes has not occurred yet.

The topic of grading can be studied in many ways, including at a student level (what percentage of students earned one or more Fs) or at the course grade level based on final course grades. We chose the latter approach and focused on grade 9 (which has the highest retention rate) for this exploratory analysis. These data should be treated as baseline, in that a reduction in failing grades was not expected until 2010-11. Table 34 shows the final grades for ninth graders in 2008-09 and 2009-10. "All Courses" includes all classes in which first time or repeating 9th graders were enrolled.

For purposes of this analysis, "Core Area Courses" includes any classes in the core areas of English, mathematics, science, or social studies (required or elective). Table 34 reveals about 14% of ninth graders failed core area courses, 8-9% failed non-core courses, and about 12% failed courses overall. A very slight decrease in the percentage of Fs given in all courses was evident between 2008-09 and 2009-10 (11.9% and 11.5%, respectively), with a one percentage point dip for non-core courses. However, no change was seen in the percentage of Fs given in core courses (14.4% for both years).

Table 34 also illustrates that the most common grade was A in all courses and in non-core courses, but B in core courses. Thus, it is more difficult to earn an A in a core than non-core course, and it is more likely that students will be given a failing grade. The majority of students earn an A or B in their courses.   The percentage of students receiving a C is around 20%, with almost equal percentages scoring D or F (just over 11%).

Table 34
Final Grades Given to WCPSS Ninth Grade Students in 2008-09 and 2009-10

ALL COURSES									
Year	A	B	C	D	P	F	FF	F+FF	n
2008-09	29.2%	27.1%	17.8%	11.3%	2.8%	11.4%	0.5%	11.9%	91,061
2009-10	29.3%	27.6%	17.9%	11.2%	2.5%	11.1%	0.4%	11.5%	91,267

CORE AREA COURSES									
Year	A	B	C	D	P	F	FF	F+FF	n
2008-09	21.9%	28.3%	21.1%	14.3%	0.1%	13.9%	0.4%	14.4%	50,734
2009-10	21.4%	29.0%	20.9%	14.3%	0.0%	14.0%	0.4%	14.4%	51,214

NON-CORE COURSES									
Year	A	B	C	D	P	F	FF	F + FF	n
2008-09	38.1%	25.5%	13.7%	7.4%	6.2%	8.1%	0.6%	8.7%	40,468
2009-10	39.3%	25.8%	14.1%	7.2%	5.6%	7.3%	0.5%	7.8%	40,187

Source: WCPSS analysis of school data.
Note: "FF" indicates failure due to excessive absences.

The WCPSS goal is for all students to graduate on time, and students need to pass most courses the first time for this to be accomplished. As shown in Figure 3, the current grade distribution for grade 9 resembles an S-shaped curve. The shape of the curve demonstrates most ninth grade students passed their courses with reasonable grades (A, B, or C) in 2009-10. However, one in five students earned a D or an F. School and central staff have indicated they would like a reduced percentage of failing grades, but no specific targets have been set at this point.

Figure 3
Grade Distribution for Ninth Graders 2009-10

	F or FF	D	C	B	A
	11.75%	11.48%	18.39%	28.30%	30.07%

Course Grade
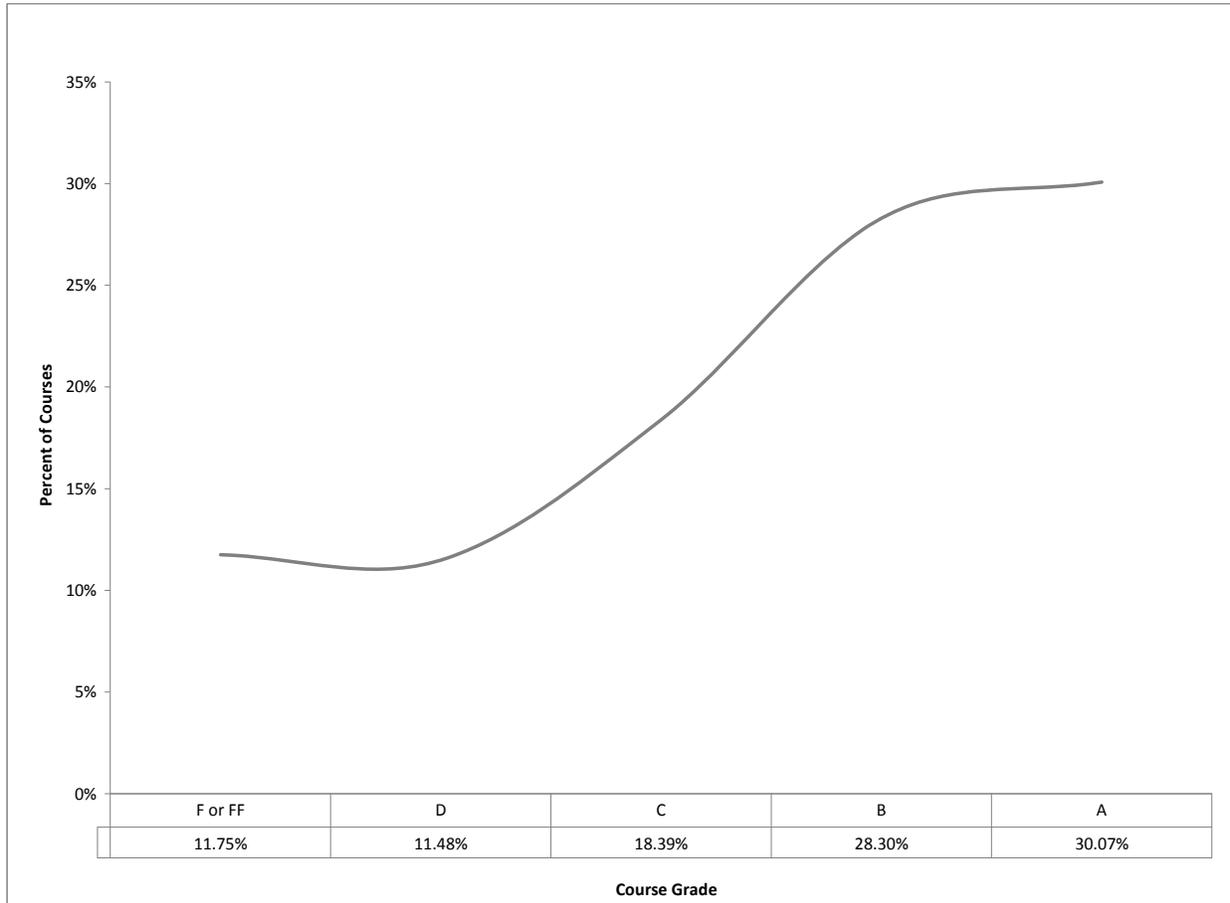
Source: WCPSS analysis of school data.

DID RETENTION RATES CHANGE?

Data show that the district's overall retention rate has declined steadily over a three year period, moving from 4.59% in 2006-07 to 4.29% in 2007-08 to 3.97% in 2008-09. Unfortunately, finalized data from 2009-10 were not available at the time of this report. Nevertheless, the results reported in Table 35 are encouraging.

It is interesting to note that the biggest declines in the retention rates occurred in the areas of most concern. To be more specific, retention rates have been the highest for ninth grade students across the K-12 spectrum, followed by retentions in the kindergarten and first grade. In those early grades, the retention rate fell from 4.24% and 4.71% to 3.38% and 3.28%, respectively, from 2006-07 to 2008-09. Similarly, the ninth grade retention rate fell from 19.47% to 17.2% across the same time span.

It is important to underscore the fact that PLT collaboration was on the increase during the period of the decline in the retention rate. However, many other factors affect student

achievement and consistent use of PLTs was not in place before the policy change. Furthermore, improvement as a result of the policy change is not expected as a short-term outcome until 2010-11; this is an exploratory analysis to show baseline data trends. On a longer timeline, it may be possible to make stronger inferences about the results of professional collaboration on retention rates.

Table 35
WCPSS Retentions by Grade and Year

	2006-07		2007-08		2008-09		% Difference
Grade	n	%	n	%	n	%	2006-2009
K	480	4.2%	376	3.3%	398	3.4%	-0.8%
1	527	4.7%	474	4.0%	385	3.3%	-1.4%
2	278	2.6%	255	2.3%	246	2.1%	-0.5%
3	175	1.7%	134	1.2%	182	1.6%	-0.1%
4	82	0.8%	57	0.5%	71	0.7%	-0.1%
5	52	0.5%	51	0.5%	67	0.6%	0.1%
6	84	0.9%	106	1.1%	79	0.8%	-0.1%
7	106	1.1%	120	1.2%	74	0.7%	-0.4%
8	119	1.2%	138	1.4%	123	1.2%	0.0%
9	2,013	19.5%	2,091	19.0%	1,941	17.2%	-2.3%
10	968	10.7%	953	10.5%	926	9.6%	-1.1%
11	598	7.3%	564	6.7%	580	6.9%	-0.4%
12	374	4.9%	380	4.7%	355	4.2%	-0.7%
Total	**5,856**	**4.6%**	**5,699**	**4.3%**	**5,427**	**4.0%**	**-0.6%**

2006-07 n= 127,568; 2007-08 n= 132,931; 2008-09 n= 136,779
Data Source: WCPSS Student Information Systems data file of K-12 students flagged as promoted, graduated, or retained as of the end of the 2006-07, 2007-08, and 2008-09 school years.

DID EOG/EOC TEST RESULTS IMPROVE?

With the single exception of the Tenth Grade Writing Test, EOG/EOC proficiency rates have improved across the board in every subject, every year, since 2007-08. In many cases, such as Reading grades 6-8, Algebra 2, Geometry, Physical Science, and U.S. History, the proficiency rates have posted double-digit gains, increasing by over 10 percentage points in a three year timeframe. Table 36 reports these data in greater detail.

Table 36
WCPSS EOG/EOC Proficiency Results, 2007-08 to 2009-10

EOC/G Name	2007-08		2008-09		2009-10		2007-2010
	% Proficient	n	% Proficient	n	% Proficient	n	Difference
Math Grades 3-5	79.0%	31,775	84.7%	32,677	85.0%	33,824	6.0%
Reading Grades 3-5	65.4%	31,769	73.4%	32,657	74.6%	33,811	9.2%
Science Grade 5	n/a	n/a	65.2%	10,696	70.7%	10,963	5.5%
Math Grades 6-8	74.5%	29,767	82.0%	30,665	83.5%	31,473	9.0%
Reading Grades 6-8	64.7%	29,759	73.5%	30,661	75.6%	31,462	10.9%
Science Grade 8	n/a	n/a	74.3%	10,106	77.9%	10,169	3.6%
Algebra 1 Grades 6-8	96.7%	3,360	97.9%	3,125	99.1%	3,323	2.4%
Algebra 1	74.2%	10,221	74.6%	10,798	83.3%	10,170	9.1%
Algebra 2	77.0%	8,441	81.5%	8,391	88.5%	8,638	11.5%
Biology	76.3%	9,618	80.1%	10,544	83.7%	10,198	7.4%
Civics and Economics	78.0%	9,653	80.4%	9,695	83.9%	10,439	5.9%
English 1	78.9%	10,558	80.6%	10,899	85.1%	10,937	6.2%
Geometry	74.5%	7,859	80.5%	8,541	85.6%	7,796	11.1%
Physical Science	60.0%	3,459	67.3%	3,438	81.1%	3,545	21.1%
US History	74.3%	8,619	77.6%	8,470	85.1%	9,328	10.8%
Writing Grade 10	78.4%	8,919	79.2%	9,540	76.3%	9,828	-2.1%

Source: WCPSS analysis of 2007-08, 2008-09, and 2009-10 testing data.
Note: The reported change in Science Grade 5 and Science Grade 8 scores reflects the difference between 2008-09 and 2009-10; the tests were not administered in 2007-08.

As shown in Table 37, scales scores remained relatively stable, with a slight upward trend. In 20 comparisons by subject and grade between 2008-09 and 2009-10, no declines were evident in any subject area, and all but two of the average scale scores improved between 0.1 and 2.4 points.

Table 37
WCPSS Scale Score Averages 2007-08 to 2009-10

EOC/G Name	2008-09		2009-10		2008-2010
	# Scores	Average	# Scores	Average	Difference
Math Grade 3	10,808	348.1	11,222	348.1	0.0
Reading Grade 3	10,785	342.8	11,188	342.9	+0.1
Math Grade 4	10,483	354.2	10,796	354.6	+0.4
Reading Grade 4	10,452	348.8	10,751	349.1	+0.3
Math Grade 5	10,349	359	10,517	359.7	+0.7
Reading Grade 5	10,313	353.9	10,493	353.9	0.0
Math Grade 6	10,163	360	10,372	360.4	+0.4
Reading Grade 6	10,164	356.3	10,354	356.6	+0.3
Math Grade 7	9,779	362.5	10,192	362.9	+0.4
Reading Grade 7	9,790	359.2	10,181	359.4	+0.2
Math Grade 8	9,830	364.3	9,893	365.3	+1.0
Reading Grade 8	9,816	361.4	9,879	362.1	+0.7
Algebra 1	11,116	155.9	10,463	157.3	+1.4
Algebra 2	8,427	155.2	8,598	156.1	+0.9
Biology	10,416	155.2	10,033	155.7	+0.5
Civics and Economics	9,677	155.9	10,392	156.4	+0.5
English 1	10,692	153.7	10,736	154.2	+0.5
Geometry	8,785	156.1	7,981	157.2	+1.1
Physical Science	3,437	152.1	3,535	154.5	+2.4
US History	8,453	155.5	9,289	157.2	+1.7

Source: WCPSS analysis of 2007-08, 2008-09, and 2009-10 testing data.

DID IMPROVEMENT IN EOG/EOC TEST RESULTS AND OTHER STUDENT OUTCOMES HAVE A POSITIVE RELATIONSHIP TO PLT COLLABORATIVE WORK?

Throughout this report the authors have been careful to note that educational outcomes are affected by a wide array of variables, and that PLT work is just one factor influencing those outputs. With that being said, the fact that PLTs were not being implemented to the same extent at all schools before 2009-10 provided a unique opportunity to attempt to isolate the impact of successful PLT implementation on selected educational outcomes. Regression analysis allowed us to statistically examine the relationship between key variables of interest to this policy study.

Using this method of analysis it became possible to make strong inferences – not binding conclusions – about these complex relationships existing among these covariates.

Linear regression analysis was used to explore the relationship between an *explanatory* (independent) variable and a set of *outcome* (dependent) variables. The ultimate goal of this type of regression is to determine the extent to which the explanatory variables affected or influenced the outcome variable. The outcome variables used for this regression analysis are based on quantifiable school data collected in the 2008-09 school year, including:

- **ABCs Performance Composite**, a North Carolina accountability statistic based on the percentage of test scores which were at or above grade level (scores at level III or IV) on all relevant EOG/EOC tests. All students are included, regardless of the length of time they were enrolled at the school.

- **ABCs Growth Composite**, a North Carolina accountability statistic calculated to reflect the average growth scores of all students who were enrolled at the school for at least 140 days in 2008-09 and took an EOG/EOC that had an expected growth score.

- **Percentage of Students Below Grade Level**, a statistic reflecting the percentage of students enrolled at the school on the first day of the 2008-09 academic year who scored a Level I or Level II on any 2007-08 EOG or EOC.

- **Attendance Rate,** a number based on the average daily attendance for the school over the 2008-09 school year.

- **Student Survey School Rating,** a figure reflecting the percentage of students who submitted surveys and who rated the overall quality of their school as either "good" or "excellent" on the biannual student survey.

- **Staff Turnover**, the percent of staff employed at the school in March 2008 who were no longer employed at the same school in March 2009.

The explanatory variable for the linear regression analyses was called the *PLT Performance Index,* a statistic which reflected the extent and quality of PLT participation at each school in 2008-09. PLT Performance Indices were calculated for each school by dividing the total number of positive responses ("agree" or "strongly agree") to the High Five PLT Survey items by the total number of item responses. As noted earlier, the annual High Five PLT Survey collected data pertaining to six core themes, including a focus on learning and teaching, collaborative culture and team processes, instructional strategies and interventions, common formative assessment, support and resource allocation, and the overall impact of PLT work. Consequently, the level of positive agreement returned for these survey items has been widely used by the district since 2007-08 to ascertain the level of PLT implementation within the schools.

Therefore, for the purposes of this analysis, the PLT Performance Indices calculated for each WCPSS school were used as a comprehensive, quantitative measure to assess the implementation and effectiveness of PLT work taking place at each site. Certainly, the validity

of this statistic could be debated because the High Five survey data were, ultimately, derived from self-reports. To lessen that concern, the research team worked to validate the High Five data through triangulation with other resources such as the NC Teacher Working Conditions Survey, direct observations, and case studies; those supportive data sources have been used throughout this report to substantiate its findings and conclusions. So while it is possible to call the validity of the PLT Performance Index into question, it remains the most comprehensive, objective, scientific, and quantifiable way to assess how well PLTs were functioning in 2008-09. It is reasonable to assume that a school that returned a PLT Performance Index of 91 was implementing PLTs more effectively on a schoolwide basis than a school that returned a PLT Performance Index of 62.

It is true that some schools had high or low academic outcomes (e.g., EOG/EOC test scores) regardless of their PLT Indices. However, the large number of schools in WCPSS make it possible to examine the relationship between the PLT Performance Indices and the targeted outcomes in a holistic manner, so those outliers failed to skew the analysis in one direction or the other. It is also important to note that the strongest indicator of PLT impact on achievement is the growth composite, since it does control for achievement before and after the implementation of the Board policy on PLTs. Other achievement information should always be looked at in conjunction with the growth results to avoid misinterpretation.

The regression analysis results, which included schools at all levels, are shown in Table 38. In interpreting the results of the regression analyses, two statistics are of paramount importance. The first is the *p value*, used to indicate the degree of statistical significance. The *p* represents the *probability of error*. It is the chance that the researcher obtained the results through random variation within the sample, and is therefore heavily influenced by the sample size (n). The larger the sample, the smaller the likelihood of an error.

The acceptable standard for social science research is to have $p<.05$ before declaring statistical significance. Or, in the simplest terms, the probability that the results were obtained by chance must be less than five percent before the relationship between the variables can be considered scientifically important. As Table 38 shows, the schools' Performance Composite, Growth Composite, Attendance Rate, Student Survey School Rating, and the Percentage of Students Below Grade Level were all statistically significant at the $p<.05$ level. Only one variable, Staff Turnover, failed to meet this alpha standard.

Once a relationship has been declared statistically significant, it is important to look at a second statistic, the *Adjusted r^2* value. This value is used to determine the percentage of change in the outcome (dependent) variable that can be explained by changes in the explanatory (independent) variable. To give an interpretation example, 6.07% of the variation in the schools' Performance Composite can be explained by the variation in the PLT Performance Index.

Table 38
Linear Regression Model:
2008-09 PLT Performance Index by 2008-09 WCPSS School Data

Outcome Variable	r	r²	Adj r²	Standard Error (SE)	n	p (significance)
Performance Composite 2008-09	**0.2585**	**6.68%**	**6.07%**	**11.4985**	**155**	**0.0012**
Growth Composite 2008-09	**0.3047**	**9.28%**	**8.68%**	**0.0865**	**152**	**0.0001**
Attendance Rate	**0.2922**	**8.54%**	**7.94%**	**2.0559**	**155**	**0.0002**
Student Survey School Rating	**0.4275**	**18.28%**	**17.73%**	**0.1377**	**152**	**0.0000**
Staff Turnover	-0.0696	0.49%	-0.20%	0.0610	148	0.4003
Percentage of Students Below Grade Level	**-0.3931**	**15.45%**	**14.89%**	**0.1328**	**154**	**0.0000**

Note: Bold font indicates statistical significance at the p<.05 level.
Source: WCPSS analysis of 2008-09 High Five Survey data and WCPSS school data.

One way to better understand the relationship between the variables in a linear regression analysis is to graphically depict that relationship using a scatterplot. Figure 4 shows one such example. The schools' PLT Performance Indices are plotted on the x-axis, and the schools' Performance Composites are plotted on the y-axis. The "line of best fit" comes as close as possible to as many points as possible, and the slope of that line – or the lack thereof – is determined by the nature of the relationship between the variables. In this case the regression line is sloping upwards, meaning the model indicates that the Performance Composite for a school is likely to increase as the PLT Performance Index improves.

Figure 4
Scatterplot: 2008-09 PLT Performance Index by 2008-09 Performance Composite
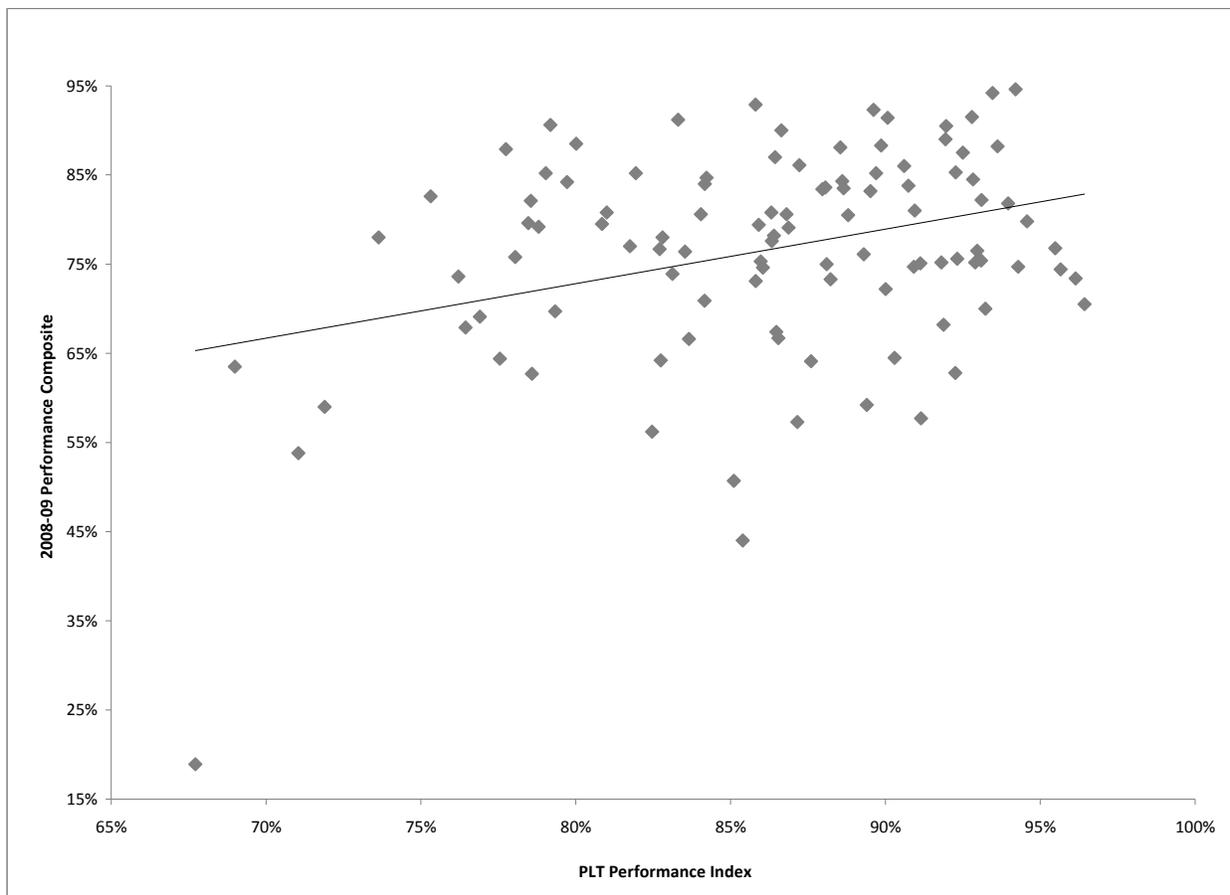
Source: WCPSS analysis of 2008-09 High Five Survey data and WCPSS school data

Figure 5 shows a similar relationship between the schools' Growth Composites and their PLT Performance Indices. As noted earlier, the Growth Composite relationship is probably the more important of the two in determining whether students met their academic targets for one year's improvement as a function of the PLTs.

Figure 5
Scatterplot: 2008-09 PLT Performance Index by 2008-09 Growth Composite
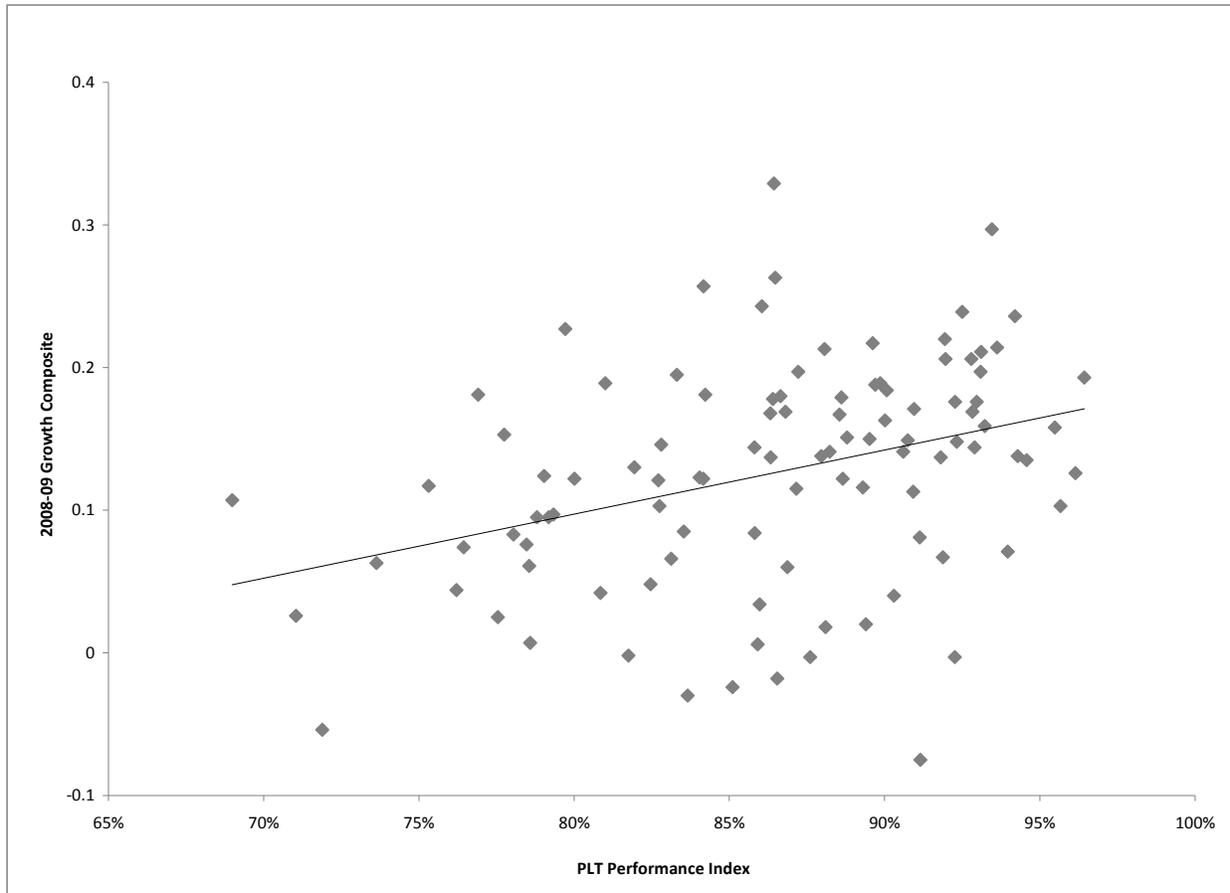
Source: WCPSS analysis of 2008-09 High Five Survey data and WCPSS school data

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It is worth noting that Figure 6 depicts a different, albeit desirable, regression line due to the inverse relationship between the variable of interest. In this case the schools' PLT Performance Index was plotted on the x-axis, and the percentage of Students Below Grade Level was plotted on the y-axis. The "line of best fit" slopes downward in this case, indicating that the percentage of Students Below Grade Level is likely to decrease as the PLT Performance Index increases.

When interpreting these data, it is important to remember how these variables of interest are defined because they are fundamentally different in nature from the variables graphed in Figures 4-5. The Performance and Growth Composites are, as their name suggests, composite scores – indicating that they are calculated using every applicable EOG/EOC test administered during the 2008-09 school year. The percentage of Students Below Grade Level, conversely, is calculated using numbers of *students* as opposed to numbers of *tests*. Therefore, a student who scored a Level I or Level II on any 2008-09 EOG/EOC would cause the student to be included in this category, even if other measures of academic achievement indicated content mastery.

Figure 6
Scatterplot: 2008-09 PLT Performance Index by 2008-09 Students Below Grade Level
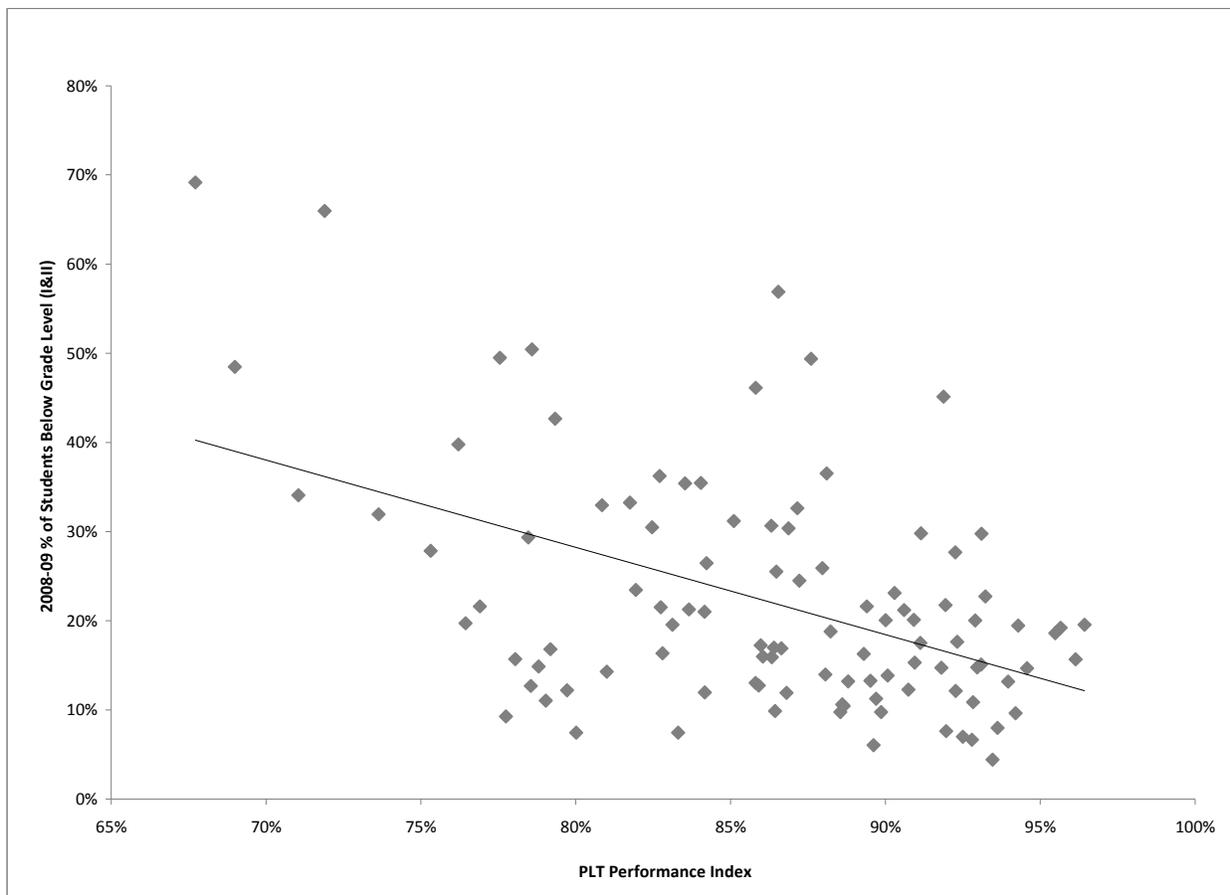
Source: WCPSS analysis of 2008-09 High Five Survey data and WCPSS school data

While the results of the initial regression analysis were compelling, it is possible to improve the model even more. While linear regression is used to examine the nature of the relationship between two variables, multiple regression is a more powerful statistical procedure that allows the analyst to incorporate multiple explanatory (independent) variables into the model. In many cases this increases the explanatory power of the equation, assuming that the additional explanatory variables have a statistically significant influence over the outcome (dependent) variable.

In this case two additional explanatory variables were added – the number of years of PLT implementation at the school and the frequency of PLT meetings. The first additional variable, the number of years of PLT implementation, was obtained from a WCPSS principals' survey. This provided a sense of the school staff's experience with PLTs, as well as the maturity of their teams. The second value, the frequency of PLT meetings, is based on responses to the 2008-09 High Five Survey. This provided a sense of the quantity of time spent in PLT work. It was critical to capture this measure of meeting frequency before the district established a common dedicated time for all PLTs to meet (Wake Wednesdays), since variation in frequency diminished considerably after the policy was adopted. (Some schools met more often than required.)

As Table 39 shows, the predictive power of the model becomes even more impressive when we consider all three explanatory factors:

- How well PLTs are functioning within the school (PLT Performance Index);
- How long PLTs have been implemented at the school;
- How often the PLTs meet to engage in collaboration.

It is true that some educational outcomes were affected more than others, but in all cases the *Adjusted r^2* improved – indicating that more of the variance in the outcome variables were explained by changes in the explanatory variables. For example, the amount of variance explained in the Performance Composite moved from 6.07% in the previous linear regression model (Table 38) to 9.69% in the multiple regression model – in which the length of PLT implementation and PLT meeting frequency were both added to the equation. Similarly, the amount of variance explained by the growth composite increased from 8.68% to 12.25%.

Table 39
Multiple Regression Model:
PLT Performance Index*Years*Frequency by WCPSS School Data

Outcome Variable	r	r²	Adj r²	SE	n	p (significance)
Performance Composite 2008-09	**0.3510**	**12.32%**	**9.69%**	**11.0658**	**104**	**0.0042**
Growth Composite 2008-09	**0.3854**	**14.86%**	**12.25%**	**0.0732**	**102**	**0.0012**
Attendance Rate	**0.4132**	**17.07%**	**14.58%**	**1.9617**	**104**	**0.0003**
Student Survey School Rating	**0.5349**	**28.61%**	**26.45%**	**0.1185**	**103**	**0.0000**
Staff Turnover	-0.0541	0.29%	-2.82%	0.0636	100	0.9632
Percentage of Students Below Grade Level	**-.4193**	**17.58%**	**15.11%**	**0.1388**	**104**	**0.0002**

Note: Bold font indicates statistical significance at the p<.05 level.
Source: WCPSS analysis of 2008-09 High Five Survey data and WCPSS school data

Thus, these regression analyses strongly suggest that higher levels of PLT implementation are directly correlated to improved academic achievement, attendance, and students' overall satisfaction with their school.

DISCUSSION

In order to address all of the evaluation questions, quantitative and qualitative data from multiple sources were compiled and analyzed within this report. Collectively, the data paint a picture of strong PLT implementation within the district. Teachers have been meeting on a more frequent basis; the use of formative assessments continues to increase; data are being used to guide instruction; and collaboration and collective inquiry are taking place on a widespread scale. It is true that considerable effort has been devoted to PLT implementation over the past several years, and our most trusted indices of student achievement suggest that the district is improving. Instituting Board Policy 3610 improved the consistency of PLT implementation, as well as the amount of time teachers were able to devote to collaborative work in 2009-10.

At this point, however, it is worth highlighting the fact that this study examined various aspects of PLT implementation through the lenses of the six essential characteristics identified by WCPSS and/or the six core themes of the High Five PLT surveys. As documented throughout this report, those essential characteristics and core themes were clearly evident, to one extent or the other, in every high-performing PLT selected for the observation sequence. However, the cross-case analysis revealed some unexpected findings – not typically found in the literature – that are worthy of discussion.

One such finding was that, across the spectrum, high-performing PLTs in our case studies made good use of technology to improve the quality of their functioning. In virtually every case, the team members utilized a shared drive so that each member could readily access the bank of common formative assessments, lesson plans, pacing guides, and students assigned to remediation – as well as documents such as meeting agenda and minutes. Additionally, many PLT meetings were held around the "campfire" of an electronic, interactive whiteboard (a.k.a., "SMART Board") so the teachers could generate Blue Diamond reports, discuss data, and/or collectively scour the internet for pacing guides, supplemental lesson plans, practice EOG/EOC questions, and other educational resources. Clearly, the ability of these teams to utilize technology for communication and acquisition was an integral part of their operations.

> **Case Study Excerpts:**
>
> "This particular PLT makes good use of technology, both for instructional tasks, as well as for communicating with one another and for providing a means for storing information and documents that the entire group will need later."
>
> "They explained that they use electronic tools to share their work, this includes the use of a shared drive to store documents that they have collaborated on and reached agreement as well as post items such as common assessments and other materials associated with learning tasks."
>
> "The group uses electronic tools to share their work and enhance their productivity. In a shared drive, they post common assessments, student group composition (which changes based on assessment results), and other planning and resource documents. The group was exploring the use of a Wiki in the last meeting observed. Laptops were used at each meeting to record group work as well as to take notes, with the laptops often turned to show the rest of the group."

Another surprising finding, revealed through the cross-case analysis, was that it was virtually impossible to predict the leadership structure of a high-performing PLTs. Some of the PLTs had one strong, dominant leader, several PLTs had chosen instead to have two co-leaders, and some PLTs rotated the leadership responsibility among its membership on a predetermined cycle. It is true that several of the schools selected for observation were, by design, on the year-round

calendar. PLT work was more challenging for those schools because the group continued to operate as its members were tracking in and out with staggered timeframes. Having two co-leaders on different tracks, or establishing a rotation schedule for the meetings' facilitators, seemed like a logical solution. But in the final analysis, it is reasonable to conclude that the most effective PLTs function like a starfish… each arm is fully capable of independent action, and no central brain or "command center" is necessary for survival – although the starfish does function more effectively when all its parts are connected and working in conjunction.

A third and final point worth underscoring is that the highly effective PLTs made good use of their time. Across the board, the research team noted that the meeting time was used effectively, with a notable absence of sidebar conversations, personal asides, or off-task behavior. The meetings in most cases were described with adjectives such as "fast-paced," "focused," and even "urgent." In most cases the agenda was prepared well in advance of the meeting, even if it was only an informal agenda representing a compilation of emails that had been flying back-and-forth between team members throughout the week. While not specifically noted in the literature, the ethereal energy and enthusiasm of the membership seemed to be a crucial factor in their overall success.

As mentioned before, the indicators used to assess PLT implementation and academic improvements within the district have been both positive and promising. Retentions are down, test scores are up, and teachers are reporting a markedly higher level of job satisfaction. All this, remember, has occurred despite the economic downturn, larger class sizes, and other factors contradicting the teachers' best efforts. We are, therefore, left to debate how much of that improvement can be attributed to PLT work, and how much of it can be attributed to other factors. The regression analysis is particularly helpful in addressing that issue in an objective and scientific manner, suggesting that desirable academic outcomes are positively correlated with PLT functioning and, by extension, any sustained improvement in PLT functioning would likely lead to increased student achievement.

> **Case Study Excerpts:**
>
> "In addition to these characteristics, this PLT is marked by a sense of urgency: time within the PLT is well-used and focused on the work that the PLT has decided needs to be done."
>
> "Team members would share teaching strategies, games used, test items with successful or unsuccessful results. Team members would jump up and use the whiteboard or SMART board to illustrate their points."
>
> "Meetings were fast-paced and highly productive, with discussions and work leading to the development of three short assessments in each of two one-hour meetings."
>
> "The group was led by two very strong individuals with opposite styles of leadership. Where one would run the meeting in a more conversational style, focusing on the perceived problems, some results and possible solutions, the other would identify the problems, and use district wide data and results to help in their resolution."
>
> "The leadership of the PLT was shared among the members. While there was a facilitator and a recorder for the group, it was clear through conversation and through sharing materials that leadership was a shared function. At some point during the observed meetings, every member of the group felt free to bring up a topic that was of particular importance to him/her."

Most of the published PLT research revolves around testimonials, success stories, and various other types of qualitative data. It is exceedingly difficult to find an impact study based on quantitative analysis and/or hard statistical data. Even though some of these quantitative studies have been located and reviewed by Evaluation and Research staff (Vescio, Ross, & Adams,

2007); Louis & Marks, 1998), there is no guarantee that the positive results seen in other districts would be generalizable to WCPSS, whose large size and diverse demographic profile make likeminded comparisons more challenging.

Therefore, the exploratory regression analysis based upon actual WCPSS data becomes even more important to understanding exactly where the district stands. The conclusion of the analysis is quite clear: statistically speaking, schools' educational outcomes are likely to improve with corresponding increases in the PLT Performance Indices. If we can agree that the High Five survey data accurately reflect PLT effectiveness within the schools, then the statistical evidence is compelling and the case for high levels of PLT implementation becomes quite strong. The regression analysis suggests that, to the extent that PLT policy leads to more collaborative time for teachers, student outcomes can be expected to improve over time.

In conclusion, the "Wake Wednesday" aspect of policy 3610 established systemwide, protected time for teachers to work in collaborative teams, which in turn enhanced consistency of implementation across the district. However, the elimination of "Wake Wednesdays" should not herald the end of PLT work, nor should it be viewed as a deterrent to collaboration. The data suggest that schools should seek ways to continue, enhance, and promote PLT work across all grades and subject areas by tailoring revised meeting schedules to meet the needs of all faculty members. To this end, all WCPSS schools have submitted written plans for continuing PLT work throughout 2010-11.

RECOMMENDATIONS

We recommend continuation of the PLT work and policy based on our study results. Some areas for improvement follow, which should further strengthen the impact of efforts.

- Clarify and standardize expectations about some aspects of the Board policy. Questions have arisen, such as:

  - ▸ What constitutes the "school community?"
  - ▸ Exactly what PLT information must be communicated, to whom, and in what manner? Should principals draw distinctions between internal and external school community members, and should they be given different information about the schools' PLT activities?
  - ▸ Is the district going to utilize a common location for PLTs to electronically upload agendas, meeting minutes, and other documentation?

- Share and discuss the logic model of expected impact of PLTs with school principals and ask them to share it with school staff. Also share the expectations with central staff. Some may not be aware of specific expectations that have been set for improved achievement, reduced failure rates, and reduced retentions.

- Increase data training for teachers, especially as it pertains to generating and interpreting Blue Diamond reports, as well as ways that formative assessment data can be used to set objectives and guide instruction. Also, streamline Blue Diamond data processing protocols to optimize

use so that teachers have the results before they move on to other topics. Some online modules on data use are available through Blackboard (E&R), but more training on Blue Diamond and formative assessments is desirable.

- Ensure that PLTs focus on enrichment as well as remediation; increase teacher training for differentiated instruction, and make sure PLTs can answer the Board's key questions of "what is it that we want students to know," "how do we know if they know it," and "what are we going to do if they don't know it *or do know it*"?   (R&P 3610, emphasis added).

- Increase the extent to which PLTs use research-based strategies to guide their efforts, and evaluate the success of interventions in a more systematic fashion. Even the high-performing PLTs selected for the case studies did not lean on research to select strategies or evaluation to assess the overall success of interventions. These teams tended to focus more on assessing individual student progress than determining which interventions were getting the best results. School staffs are encouraged to use central resources to strengthen collective inquiry. Links to E&R reports, as well as to outside research sources, are available at the E&R website (http://www.wcpss.net/evaluation-research/reports/index-date.html), and content experts in the Instructional Services Division may also be helpful in recommending best practices. Online modules are also available in Blackboard (E&R) on developing logic modules and evaluating system efforts.

- Consider allowing high-performing PLTs to have more control over their time usage in schools that dictate how the PLT time will be spent, e.g., "PLT time can only be used to discuss data" or "PLT time can only be used to develop common formative assessments." Also minimize the extent to which administrative mandates (school or central) override the agenda PLTs may have planned; i.e., provide as much flexibility as possible to high-performing PLTs.

- Formalize PLT training for new teachers entering the district. We assume that the experienced teachers are bringing the new teachers up to speed, but it would be better practice to ensure they are all properly grounded in the PLT fundamentals. Watching a DVD can be helpful, but may not be adequate.

- Establish an ongoing training program for PLT leaders. Unfortunately, many PLTs are a "closed loop" and have advanced as far as their collective knowledge and training will permit. By identifying and training PLT leaders, it will be possible to funnel additional information into the teams and facilitate professional growth. A districtwide PLT directory, as well as a WCPSS PLT Leader email list, may be helpful in disseminating information. Remind leaders how to obtain available resources, such as the PLT "fishbone" (http://www.wcpss.net/curriculum-instruction/resources/admin/plc_framework/index.html), and post reminders for all staff.

- Continue assessing PLT implementation across the district using various means. Previous evaluations show that WCPSS is making slow but measurable progress towards full implementation of all components of the model.

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APPENDIX A

CASE STUDIES
ELEMENTARY SCHOOL, MIDDLE SCHOOL,
AND HIGH SCHOOL

GRADE K PLT

WEEKLY OBSERVATION CYCLE

Highlights

The following anecdote is taken directly from the field notes for a particular observation at this school:

Teacher L. and Teacher A. tell the group that it's time to start planning for their new SMART goal. Teacher L. says that the first thing they need to do is to figure out what the focus will be, and then they need to create a common assessment. Teacher L. suggests that they work on number sense for the numbers between one and 30, because that particular skill/objective continues on into the fourth-quarter of the kindergarten curriculum. Teacher P. says that she likes that, because she can work on that as well in her classroom. Teacher C. says that 14 out of her 22 students are currently showing inconsistent mastery of the numbers between one and 20.

…Teacher L. begins typing up some documentation on the team's new goal. She is characterizing the goal as having two parts: recognizing numbers between one and 30, and writing numbers between one and 30. Teacher L. then tells the group that she has a third and fourth-quarter assessment that she can share with the group that they might consider using for their common assessment for this SMART goal. Teacher L. also mentions that they can use flashcards, tallying the number of numbers that students get correct. Teacher A. then asks her "just like DIBELS, right?". Teacher C. then asks how long they should give students to respond to each item in the assessment. She also asks what to do if a student makes a self-correction during the assessment. She also asks about reversals, such as using 12 instead of 21 etc. etc. Teacher L. then says something about how they should present the numbers to students in a random order, rather than in count order. She also says that they can use their teacher assistants to do these assessments one-on-one with students. She then labels their assessment scheme as "random number writing" and "random number recognition."

… Teacher L. then asks the group about how they're going to analyze the results of this assessment. She suggests grouping children based on those who can/can't do numbers one through 10, numbers 11 through 20, and numbers 21 through 30. Teacher C. suggests that they chunk the assessments into those same 10 number categories. … Teacher L. mentions that parent volunteers can also help with some of these activities and assessments. She suggests that they can put numbers into three bags - one for 1 to 10, one bag for 11 through 20, and one bag for 21 through 30. Teacher A says that they can also use the Title I teacher to help with some of this. Teacher L. asks the group whether they should include zero as a number. Teacher P. says that she thinks that they should, because she has talked a lot with her kids about zero and the concept of zero. Teacher P. then talks about an activity that she had done with her kids on Friday related to Valentine's Day, where they sorted candy hearts and talked about how many of each type/color they saw.

This particular snapshot of discussion encompasses many of the strengths of this PLT – setting measurable goals based on data, frequent and targeted assessment, brainstorming a variety of possible instructional strategies, and being thoughtful about essential learning targets on which to base their goals.

Background

The school in which this PLT is situated is located in southern Wake County, serving 550 students in grades kindergarten through five. The school began working in PLT-like structures approximately four years ago, at the behest of the current administrators at the school. These were created grade by grade. Teachers were shown lots of data, including Effectiveness Indices, ABCs results, etc. These groups eventually evolved into the current PLT structure at the school.

PLTs are generally set up by grade level at this school. They meet every Wednesday as per board policy. Each grade level also has a separate meeting for "kid talk" during specials every Thursday. Each grade level also has additional planning time either before or after school at least one day per week.

This year (2010), each of the teams has established SMART goals, which are linked to the goals in the school improvement plan. Specials teachers meet in a separate PLT – arts, music, physical education, etc. During this year the Wednesday PLT meetings have been organized by the administration, and are conducted in a large-group setting in the media center. Each PLT meets at a separate table, working independently while administrators "float" from table to table, offering suggestions and advice, and also monitoring the teams' activities.

PLT Meeting Observations

With a couple of exceptions, the agenda for the meetings was very wide open and basically determined by the individual PLT groups. There were two instances where the meetings opened up with a particular PLT presenting some recent results of their SMART goal journey, but more times than not, the PLTs just gathered individually and proceeded on their own during the one-hour meeting times, operating completely independent of the others, even though they were in a shared meeting space.

The Kindergarten PLT group likewise moved through their agreed-upon agenda at will. The agenda was distributed on the "shared drive" on the school's network, and the teachers accessed it and other ancillary materials with their laptops most of the time. Across the observations, a clear structure akin to a traditional "Plan-Do-Study-Act" quality improvement cycle was evident. The general pattern of Kindergarten PLT activity appeared to be:

(a) set some kind of 'SMART' goal based on student assessment data and observations about the
     sequence of the curriculum,
(b) brainstorm various instructional strategies that were hypothesized to help under-achieving
     students meet the specified benchmark,
(c) monitor and tweak the process as needed during the defined time frame for the SMART goal,
(d) evaluate whether the goal was met at the end of the time frame, and
(e) set a new goal and start the cycle over again.

The length of these cycles varied, but was generally at least 3-4 weeks in duration. Agendas and
other materials obtained from the teachers from some of their meetings earlier in the year
confirmed this. The group operated this improvement cycle very efficiently and in a way that
suggested that they were all in agreement as to its value. During the observations, elements of
three different SMART-goal improvement cycles were observed that involved letter recognition,
number sense/recognition, and rhyming words. In each case, the particular goal that was chosen
by the group was based on needs as identified in pre-assessments as well as the teachers'
knowledge about which learning objectives were critical for success later in the year (i.e.,
essential standards).

The group was very collegial and appeared to be comfortable with each other. They spent very
little time off-task, taking full advantage of their one hour of time each Wednesday afternoon.
They seemed very motivated, excited about their work, and genuinely concerned about helping
as many students as possible be successful. In short, they seemed like the kind of group any
parent would love to have teaching their kids.

The leadership structure of the group was somewhat hierarchical, with one teacher taking the
lead on much of the discussion. However, the other teachers in the group were clearly
comfortable providing feedback or suggesting other avenues to explore when they felt the need.
The "lead" teacher would often open their discussions and provide initial suggestions as to what
to do and how. The rest of the group then would either offer another opinion, or not. The other
teachers, however, rarely initiated topics or ideas, choosing more often to react to or play off of
the suggestions of the "lead" teacher. The group was also good about involving others in the
school, including the Instructional Resource Teacher (IRT) and the ESL teacher in particular,
when they thought that those specialists could provide new insights or resources to help them
achieve their goals.

The vast majority of their meeting time was usually spent engaged in one of two activities:
Working with data, and brainstorming about instructional "next steps." They were very
comfortable with data and using assessment information, and they typically had collected
common assessment information on which to base their discussions. Discussions occurred
around the number and percentage of students who had or had not met the particular goal they
were working on. Discussions also occurred around the progress of individual students,
particularly those who were behind or whose progress was remarkable in some way (either going
way up or stagnating). These data were generally stored on a shared network drive that each of
them could access via their laptops. One of the downsides of their data use was that an
inordinate amount of meeting time in some cases was spent recording and manipulating data
rather than discussing its implications. This intensive manual process struck me as an

opportunity for the team to recapture some time by preparing and massaging the data ahead of time so that more of their weekly team time could be spent discussing implications rather than simply getting all the raw data into the shape they needed. Another interesting aspect of their data collection activities was that when transitioning from one SMART goal cycle to another, the group continued to "progress monitor" those students who had not met the goal at the end of the time frame while simultaneously transitioning to working on the new goal.

Brainstorming instructional strategies was a part of virtually every meeting. It generally consisted of a free-flowing discussion among all the teachers about what materials and personnel resources they could use to work on building students' skills in the area of their current SMART goal. In most cases, these strategies revolved around ways to increase the *quantity* of instruction students received around the goal area – pull-out groups using Teacher Assistants or parent volunteers, guided reading groups, flash cards, use of various websites, sending home additional activities for parents to do with their children, using transition times and "out-the-door" activities as times to reinforce skills in a didactic sort of fashion, etc., etc. These strategies were generally suggested as ways to increase "time on task" for students in general or in some cases for targeted students who were behind the benchmark at that particular time. However, there were only a few instances where the discussion touched on how the *quality* of instruction could be changed – e.g., differentiation strategies, alternative ways of teaching the same skill, etc. That is, the focus was more likely to be on the amount rather than the nature of the instruction itself. There was also much less discussion around how to extend or enrich learning for those students who had already met the goal than there was around helping those who were behind. Struggling students were the primary focus of the group's discussion when they did "kid talk", except for one or two instances.

SUMMARY OF GRADE K PLT

Looking the R&P under the Wake County Board of Education policy on PLTs, this particular PLT appeared to meet most of the six characteristics of a PLT:

1. Shared vision and values	Yes
2. Supportive conditions	Yes
3. Shared leadership	Somewhat
4. Collaborative culture	Yes
5. Collective inquiry	No
6. Focus on results	Yes

The only criterion that was not evident in the group was that of collective inquiry. A blog post by PLT guru Rick DuFour posits a definition of collective inquiry as follows:

Clarifying Collective Inquiry

December 9, 2008

By: Rick DuFour

We received a question about collective inquiry as it relates to professional learning communities. The writer indicated he was confused and wondered if it simply meant the comparison of test scores of the students of a collaborative team. He asked for clarification and examples. Here is my response:

*Collective inquiry is the process in which educators engage as they make significant decisions. Rather than making decisions on the basis of mindless precedent ("This is how we have always done it.") or personal preference ("This is how I like to do it."), they begin by building shared knowledge or learning **together**, thus it is a **collective** endeavor. **Inquiry** simply means we are asking and answering questions together. The key to effective **inquiry** is making sure the question is significant, that resolving it will help us be more effective in achieving our fundamental purpose and goals.*

(Taken from: http://www.allthingsplc.info/wordpress/?p=75 on May 27, 2010)

Collective inquiry is the only aspect of the six characteristics of a PLT that this group did not clearly show, particularly in the case of evaluating the effectiveness of specific strategies in helping students progress. While there was a clear willingness on the part of team members to share and try a wide variety of strategies, and while assessment results were widely and openly shared during every meeting, the "digging deeper" aspect of collective inquiry – what DuFour refers to above as "building shared knowledge or learning together" was hampered by the team's inability to articulate at the end of their improvement cycles specifically *which* strategies were (or were not) effective in building *which* skills for *which* students.

Admittedly this is perhaps the most difficult of the six characteristics for any PLT to demonstrate, and probably requires the most advanced skill set for teachers to deploy effectively. It may be that the absence of this characteristic merely indicates the stage of development of this particular PLT. The level of discussion in the group at times suggested that they are poised to take that next step, perhaps with additional time and support at the school. For example, one of the teachers in the group asked the others as they were evaluating some recent assessment results what they thought "worked" in building this particular skill for their students. While the others were able to say what they "felt" worked well, they were unable to produce actual *data* to substantiate those beliefs. The teacher who asked the question then responded in a less-than-satisfied tone, "Well, it's been working, whatever we've been doing." At another time, a teacher expressed concern that the group had not had the opportunity to discuss instructional approaches

because their entire meeting time that day was essentially devoted to recording assessment data. These kinds of "inflection points" in the discussion suggest that this group may be ready to take that next step sometime soon and start to engage in the kind of "collective inquiry" described in the DuFour quotation above. The fact that the group as a whole is relatively young (ranging from 1-6 years of teaching experience) suggests a very high ceiling (i.e., tremendous growth potential) as they gain more experience, particularly given how well they exhibit the other PLT traits at this point.

Overall, this group appears to be well on its way to being the kind of ideal PLT that DuFour and others have described. They operate using a very efficient "plan-do-study-act" improvement cycle, centered around SMART goals that are linked to key curricular competencies that their students will need to have to be successful both in and beyond Kindergarten. Without using the term explicitly, the group also appears to have adopted a mastery-based learning model, where time is the variable and learning is the constant for their students, as evidenced by their continuous progress monitoring of students who are not proficient even after the SMART goal "window" has closed. Given additional time and experience, and given additional support in a few key areas, data from these observations suggest that this group is already fairly well-advanced in terms of their "PLT-ness", and that they have the potential to go even farther in the future.

GRADE 1 PLT – A

WEEKLY OBSERVATION CYCLE

Highlights

 "I appreciate our PLT time because it has made me a better teacher. Not only that, I value the time because we use it to develop formative assessments that we all will use, share and discuss student results, coordinate instructional activities, and receive feedback from each other. The feedback helps me to know if I need to change how I am teaching something," one PLT member commented in her response when asked what she liked most about her first grade PLT. "The time we have together allows us to help each other to solve common issues with our students. It gives me the confidence, as a teacher, to know that I am on the right track and doing all I can to help them (students) reach their potential," another member stated. These comments from two team members were not isolated, as other members of this first grade PLT shared very similar sentiments regarding what they liked most about their PLT.   During the observations of this PLT, it was noted that the PLT continuously sought ways to engage their students who were not performing on grade level. The members solicited and provided feedback on a regular basis to one another in an effort to enhance instruction.

Background

The PLT in this case study was observed on a weekly basis a total of 11 times. The PLT was comprised of five first grade teachers with an average of six years of teaching experience and time working together as a first grade team in a year-round elementary school. The only exception was one teacher who was a long-term substitute and was in her first semester of teaching. Although two of the five teachers were designated and served as co-leaders, leadership for the PLT was often shared. Additionally, the PLT was supported by regular participation (in their meetings) of two Title I teachers who provided direct instructional support to students in the first grade classrooms. This PLT also met once a quarter, as well as on an as-needed basis with the Literacy Coach to discuss reading and writing results in addition to instructional strategies. The PLT meetings were held on Wednesday early release days and usually began at 2:15 with an ending time of 3:15 unless an extension of time was needed or requested from one of its members. The team also met for an additional hour after their designated PLT time to extend their discussion of "Kid Talk" when necessary, or to confer about more routine or logistical items as a grade level.   The PLT had the opportunity to meet in a designated teacher's classroom, which allows them immediate access to resources and any needed materials.   It was standard protocol for the PLT to use an agenda to guide their discussion and minutes were recorded at each meeting and stored electronically on a shared drive.

PLT Characteristics

After observing this first grade PLT, the observer determined that the team strongly demonstrated four out of the six characteristics of a PLT as identified by WCPSS. The following summary provides evidence of how the PLT demonstrates: *shared vision and values, supportive conditions, collaborative culture, and focus on results.*

Shared Vision and Values

"Focusing on student learning is what motivates our grade level. We want to see all of our kids succeed so a lot of our time (during PLT) is spent reviewing student work individually and collectively as a grade level to help focus areas we need to teach or re-teach," commented one member of the PLT. The first grade PLT that was observed is one whose focus is on student learning, which is a fundamental characteristic of a professional learning community's vision. Embedded in their discussions and subsequent actions is the shared commitment towards learning for all students. The goal of the PLT, in the words of one teacher is, "to work together as a team to produce SMART goals and use data to better teach our population." To achieve this goal, all of the PLT members agreed that they must focus their efforts on key objectives and student data for each quarter to make sure their students are succeeding. This is evidenced by the teachers' shared knowledge of all the first grade students, even those not in their individual classrooms, and their specific learning needs. For this PLT, the focus on student learning is clearly not an individual teacher's vision but one that extends across the grade level, thus creating an atmosphere that is supportive and safe.

Supportive Conditions

Aside from appreciating the opportunity to have a secured time and location to meet with their PLT, the teachers unanimously agreed that they value the relationships they have formed with their colleagues. "Our PLT group gets along well, comes prepared, and listens to one another," a member commented. "This PLT provides an open forum which encourages risk-free sharing of information about students who require extended or specialized support," explained another teacher. The strong collegial relationships were evidenced during the observations by the teachers' willingness to ask clarifying questions during their PLT discussions, seek support regarding students who were below benchmark and/or struggling with a particular concept and the opportunity to share thoughts or concerns. When asked about the challenges with their PLT, one of the PLT members indicated that "being year round can make it difficult to always know what is going on" and also stated that there is "not enough time in a day or hands available to accomplish everything we'd like," other members nodded in agreement during the focus group interview. Additionally one member indicated that the "paperwork collection" can sometimes become a challenge because it "feels like we are always collecting assessments." The PLT went on to explain that they believe a large part of their success begins with the leadership at their school. According to the PLT, the leadership at the school has worked hard to ensure that their PLT has supportive conditions in which they have a presumably well designed framework in place for use in developing and sharing their SMART goals, curriculum maps and meeting minutes. They explained that they use electronic tools to share their work; this includes the use of a shared drive to store documents that they have collaborated on and reached agreement as well as to post items such as common assessments and other materials associated with learning tasks.

It was apparent during the observations that the teachers in the PLT have a great deal of respect and trust for one another and a willingness to accept feedback. Additionally this PLT seemingly has a transparent culture for sharing and discussing student data and/or work as well as instructional strategies. In one instance a teacher expressed that she was not confident with how

she scored a particular student's writing assessment and wanted obtain the opinion of the team. She apologized repeatedly for having to go over the student's work again but all of the team members reassured her that it was their job as a team to provide support and assistance to one another and proceeded to discuss the student's writing sample. In subsequent meetings, other teachers felt empowered to ask for the same type of assistance with scoring the students' writing samples resulting in meaningful time for the team to engage in the effort of focusing on student work. One PLT member explained that she wanted to receive some additional support for one of her students because "he is right at benchmark but does not qualify for Title 1 services or ESL. His reading level is too high. I am concerned about him and am hoping that he does not fall through the cracks." The literacy coach offered her support by volunteering to take her student along with the group of kids she works with in order to provide him with the additional instructional support he needs. Not only was the literacy coach's action an act of support but also one of collaboration.

Collaborative Culture

As a result of their time together in the PLT, the teachers believe that they work together more as a team than they have in the past. One PLT member indicated that they "share more and are more aware" and while they have never felt isolated they feel like they "are more networked." The PLT has created a culture that lends itself to open communication and problem-solving. One teacher noted that she appreciates the "discussions about what's working, what isn't, and the use and discussion of common data and/or assessments across the grade level as well as getting strategies from other team members on what is working in their classrooms." The PLT members were observed regularly exchanging ideas and welcomed questions or feedback. Often someone would make a suggestion and follow with a question such as "what do you guys think about that?" and another member would respond by saying "that is such a great idea and we could expand it by…." Another example of collaboration between the PLT members was observed during the development of the Curriculum Maps and SMART goals for their grade level. This type of collaboration provided the opportunity for the teachers to work together in smaller groups with a direct focus and required input from all members. The members then used their time together as a PLT to discuss the essential objectives and any strategies they researched with the rest of the group. The PLT seemed excited about the activities they planned and demonstrated a real sense of belief that these activities would help improve student learning. This was evident from comments about the planned instructional activities such as: "I have a student who has been using these cards and is beginning to pick up on numbers quicker," "This group will do great with this activity because they are all really good kids and at the right level" and "I like this activity because it reinforces teamwork. I have a student, although very bright, who needs to work on teamwork." The teachers collectively created a schedule of dates to share their student pre-assessment data, midpoint data, and post assessment data. The observer noted that all of the members were eager to share their results and discuss the successes from their individual students.

Focus on Results

Each quarter the PLT develops SMART goals (in reading, writing and math) making sure they are aligned with the goals outlined in their School Improvement Plan. For example, the SMART goals for Quarter 3 included: 90% of students will be able to change beginning and ending

sounds of words to make new words. 90% of students will be able to write at least 3 sentences that relate to the topic; and 90% of students will be able to: connect model, number word and number using a variety of representations. For every PLT meeting, the focus, discussion and summary are guided by the following questions: 1) How do we know they have learned it? 2) What specifically will we do in the classroom? and 3) What do we do when they know/don't know it? The SIP goals, the quarterly SMART goals and the guiding questions are all outlined on the PLT agenda template which is used for every meeting as a guide for discussion. Using the guiding questions to report results, the PLT regularly celebrated with each other those students who made vast improvements and discussed strategies for those students who did not meet their SMART goal. While discussing individual student work, a teacher held up one of her student's writing sample and read what he wrote, "I paint a picture of a lion and a dolphin". She excitedly commented, "I am proud of him because this is good work for him and, a lot of improvement!" Another PLT member also shared an example of a female student's work which read, "I see a rabbit. I put her outside. She sleeps." and commented, "this is a good effort for this student, however she will not get the scoring because the sentences are not connected." She went on to say, "it is examples like this one that makes scoring difficult because the students are beginning to show vast improvements in their writing."

The PLT reviewed the results for individual students but also the grade level as a whole to determine if the instructional strategies put in place needed to be revised or changed. The discussions tended to focus on those students who were below benchmark and how they could help them improve. There was not a lot of discussion regarding the high achieving students and how they could help them grow. In fact, on a couple of occasions, there was discussion about two students with very high reading levels. Regarding one student, a teacher commented (while displaying the student's work) that, "he will receive a four in reading but a two in writing because he does not like to write." Another teacher commented that a female student in her class is "reading at a level 23 but because of her poor attention span she will have a difficult time officially scoring that high." Strategies were never discussed to help these particular students grow. This PLT communicates progress towards achieving the SMART goals on a regular basis and uses the information to make any instructional changes when necessary.

SUMMARY OF GRADE 1 PLT - A

The first grade PLT observed for this case study maintains a clear focus on student learning and in doing so has a strong desire to work together as a team with a focus on student learning. This PLT is a cohesive group with very productive team meetings. Additionally, it seemed customary for the PLT members to routinely focus their efforts on key objectives and SMART goals as they reviewed student data. A suggestion for improvement would be for the PLT to include in their discussions a focus on collective inquiry, an identified characteristic of an effective PLT by WCPSS. This would allow the team to engage in conversations about instructional practices enabling them to build on one another's expertise. Additionally, this PLT would benefit from exploring strategies to stimulate learning for the students scoring above benchmark. However, given all of the positive attributes of this PLT, overall it should be considered as one that is operating in an efficient manner with evidence of a highly effective PLT. Additionally, it is one that other grade level PLTs within schools could learn from by observing and replicating their PLT process in an effort to improve student learning.

GRADE 1 PLT – B

MONTHLY OBSERVATION CYCLE

Highlights

One member of this PLT stated, "as a group, we are stronger than as individuals." This first grade PLT has mastered the art of collaboration with the goal of improved student learning. Another PLT member remarked that her students "reap the benefits of a group of shared ideas." The group is high energy and very productive. They create, administer, and use common formative assessment data to direct their own instruction as well as to group all students across classes four days a week for specialized instruction (from students struggling with essential skills to those who have mastered the skills).

Background

Three observations took place in January, February, and March of 2010, which were supplemented by minutes from all of the meetings that occurred during the year. All but one of the teachers had been working together in the PLT for four years.

The PLT observed consisted of seven first grade teachers in a year-round elementary school plus three teacher assistants who join them periodically. Because of the year-round calendar, attendance ranged from five to seven teachers over the three monthly visits. The grade level chair usually facilitated the meetings, but another member served that role when she was tracked out (which was described as a seamless transition). The group meets in one teacher's classroom after school on Wednesday after carpool is complete—usually 3:15-4:15 or later. Beyond the formal meeting, group members indicated that they often discuss their work over their common lunch time or before and after school. The group does not use a formal agenda, but has a general list of topics and decides what to discuss next at the end of each meeting. These "next steps" are documented in the minutes. A notebook of minutes from all teams is kept in the front office.

The group uses electronic tools to share their work and enhance their productivity. In a shared drive, they post common assessments, student group composition (which changes based on assessment results), and other planning and resource documents. The group was exploring the use of a Wiki in the last meeting observed. Laptops were used at each meeting to record group work as well as to take notes, with the laptops often turned to show the rest of the group.

PLT Characteristics

The group clearly displayed a clear *focus on learning* in a *collaborative culture* with an *emphasis on results*—cornerstones of PLT work. WCPSS has identified six characteristics of PLTs— shared vision and values, supportive conditions, shared leadership, collaborative culture, collective inquiry into best practices, and focus on results. Based on these characteristics, the first grade group's clearest strengths were working together in a *collaborative culture* and *focusing on results*.

This PLT has established a collaborative culture. The group facilitator generally introduced items and ideas, and free-flowing, lively, collaborative discussions and conversations ensued. Members felt free to question or amend others' ideas, to make assignments based on people's strengths, and to hold each other accountable for their actions. Meetings were fast-paced and highly productive, with discussions and work leading to the development of three short assessments in each of two one-hour meetings.   In one meeting, the group broke up in subgroups to develop draft assessments before coming back together to discuss and finalize them. Collaboration with special education teachers was not observed during PLT time.

The facilitator and others in the group shared that it had taken a while to build rapport and to come to appreciate each others' strengths. They went so far as to say they did not like each other very much when they first started working together a few years ago because they had very different styles and methods. The facilitator indicated the use of quality tools and the color analysis were essential in developing camaraderie and cohesion in the group over time. They have now come to "appreciate and utilize each others' strengths in productive ways." This enables them to compensate for weaknesses rather than complaining about each other. The team is seen as exemplary and a resource in the school. Often others come to them to try things first, as was the case with the Wiki trial and a set of online resource materials.

This PLT definitely had a strong focus on results. A focus of the PLT work this year is the development of common formative assessments centered on essential core skills they have identified. The group indicated that the use of common formative assessments has "increased 100%" through their PLT work; before they used them in isolated cases and coordinated with one other teacher only occasionally. Assessments were often built during PLT meetings, and then quickly copied, distributed, and administered to students—usually the next day. Results were quickly tabulated and used to place students into flexible groups based on the adopted common standard for success. Each teacher takes a subgroup of students four days a week for either enrichment or additional instruction (two days for reading and two for mathematics). Group sizes are larger for the more advanced students and teacher assistants are placed with the groups which include struggling students.

The PLT occasionally discussed the progress being made within the groups. Benchmark assessments results (e.g., Dibels and reading book level) were reviewed to gauge progress toward group goals. Based on the fall results on the Dibels assessment, revisions were made to instructional plans to build skills that fed into nonsense word fluency. The group only talked about individual student progress occasionally during the observations as it related to the topic being discussed. In the group interview, participants indicated that this type of conversation tended to happen at lunch (they eat together) or before or after school.

Evidence also exists for *shared vision, supportive conditions*, and *shared leadership*, although these were not quite as strong.

- *Shared vision:* In the focus group, the team seemed clear that their general goal was "to make students smarter" and have 95% of students master what they consider core essential skills. The group focus this year is on creating measurements for these core essential skills, and these assessments and their results were discussed in all three meetings observed and

reflected in other meeting minutes as well. However, the meeting minutes indicate that the specific SMART goal for the team this year related to the percentage of students who meet reading book level standards; this was discussed directly only once based on team minutes and not at all in the three observed meetings. While related, the clarity of goals remains a question. All of the goals cited do relate to district goals.

- *Shared leadership:* All team members had clearly assigned roles for the year, including back-up roles for track-out periods. One or two members were generally taking notes or recording group work at each meeting. The facilitator tended to start discussions but all contributed to and utilized the final products. While some members were more verbal than others, all appeared to be involved in making key decisions.

- *Supportive conditions:* The team meets in one of the first grade classrooms and generally seems well supported in their work. The shared drive and new Wiki are helpful tools. Snacks are always provided by one or more team members, which appear to be important as a late afternoon treat more than as a celebration. Evidence of celebrating success was not observed. Finding ways to fully involve the teaching assistants has not been fully developed; the facilitator was not sure they would be involved in 2010-11 once Wake Wednesdays ended. The group actually wished they had more time for PLT work, and mentioned that occasionally they were asked by "the county" to discuss specific topics which took away time from their regular agenda. Fewer changes from the system level would also be appreciated. The year-round schedule was also cited as a challenge since everyone is seldom there; back-ups and the shared drive helped keep the work moving and the staff up to date.

The characteristic of *collective inquiry into best practices* was observed in some ways but not in others. This seems to represent an area for future growth in this strong team. In developing common formative assessments, it was obvious that the group had a clear understanding of the NC standard course of study and the essential skills they expected all students to learn in reading and mathematics. They focused on these skills for all of their assessment building. In addition, they maintained a consistent focus on providing opportunities to enhance student learning. The group also willingly shared ideas and gave each other feedback. However, most ideas focused on assessment rather than instruction.

Sharing research-based strategies for instruction was not observed in the three meetings or mentioned in the minutes. Sharing strategies that had been tried was done occasionally, and ideas for improvement were sporadically mentioned based on personal experience, but this was not a large focus of the team work. One set of meeting notes from the fall indicated the group discussed common characteristics of lessons they found engaged students. One group member indicated that ideas for instruction came from personal experience or research and varied by person. The impression was that the differentiated instructional groups worked fairly independently, with the assessments informing future placement. It could be that instructional strategies were discussed in other venues, or that the group will turn to this topic once assessments are completed. Nonetheless, an important next step for this strong group would be to purposely discuss strategies that could improve individual or group instruction and systematically assess their success in improving student learning.

SUMMARY OF GRADE 1 PLT - B

The first grade PLT observed is definitely strong; it is easy to see why they were nominated as exemplary. Group cohesiveness and collaboration are stellar as is their focus on using data to drive instructional decisions and provide extra instruction to students. Leadership is shared, conditions are quite supportive, and the general vision is common. Clarifying goals and building collective inquiry into best practice are the main areas for growth.

GRADE 3 PLT

WEEKLY OBSERVATION CYCLE

Highlights

The number of observations of this grade three PLT was limited to four consecutive weeks and therefore, was shorter than most of the observations conducted during this study of PLTs led the by the E&R department. Furthermore, the observations occurred as this team of teachers was introducing a new spelling program. This PLT evidenced strong collaboration in their organization of starting a new spelling program and depended on each other heavily. They shared and examined their student's results freely and discussed strategies to help them achieve. The teachers unanimously agreed during the focus group interview that the PLTs are making them better teachers and as such are helping their students be more successful.

Background

This PLT's meetings were scheduled every week on Wednesday afternoon for one hour, as the school let out the students early during what has come to be named "Wake Wednesdays". This PLT consisted of five grade three teachers. The meeting facilitator was their lead teacher at every meeting. The observations started at the beginning of the second semester of the school year and it had just been decided that this school as a whole was going to introduce a new spelling program, which focuses on teaching spelling to students following techniques based on the application of the words to sentences, finding the words in books and other activities that go much further than simple memorization of the word's spelling. During this period of the year, in their PLT meetings, the teachers spent a big part of the meeting learning about the program and getting organized. Furthermore, the observations did not last as long as it had been originally decided in the study plan. They ceased after four sessions at the request of the school principal, to whom the PLT chair had reported that she thought that the observer's presence was keeping some of the teachers from expressing themselves freely, therefore impeding the progress of their work.

The meetings were carefully structured because of the way they were organized using a consistently formatted agenda. One of the teachers took notes. This responsibility rotated among the teachers (except for the facilitator). The participants were provided with an agenda at every meeting, which followed a Facilitative Leadership format. The agenda listed the basic norms and rules to be followed during the meeting and which topics were going to be discussed, with desired outcomes. Space was planned on the agenda to summarize the decisions that had been made and whose responsibility it was to make sure that the steps were followed to make the decisions happen. The back of the agenda was dedicated to the lesson plan for the following week, which was discussed at the end of all the observed meetings. Most of the meetings lasted longer than the policy-mandated one hour, which showed that the teachers did not hesitate to dedicate some of their personal time to the functioning of the PLT.

The first observed meeting was dedicated entirely to training on the new spelling program. The IRT coordinated the meeting. She explained that the teachers as a whole had decided to use this

program because they thought that their students would benefit from it, based on the fact that students who are better spellers are also better readers and writers. She shared with the observer that she had experience with this program, and that even though she had hoped that the school would use it because she thought it valuable, it had been the teachers' decision to adopt it. Two of the fifth grade teachers who were already using the program presented their experience to the other teachers and gave them tips about how to get started. The topic of the spelling program was a big part of the third grade PLT's agenda for the following weeks. However, during the focus group interview, every teacher mentioned that this meeting format was not typical of what their PLT meetings usually were. As cited by one of the participant "during the time period you observed our PLT, a great deal of time was focused on *the new spelling program* as we were just beginning the implementation for this in our grade. Typically we discuss students in need and methods to assist these students; we also develop lesson plans and grade level assessments."

PLT Characteristics

Collaborative Culture

Despite the short period of time allocated to the observations and the time frame in which these observations were conducted, this PLT exhibited main PLT characteristics described in the literature.

The collaboration culture of this PLT was evidenced by several aspects of the meeting and the teachers' behaviors. Even though the PLT meetings were facilitated by the same teacher at every observation, all teachers participated in some fashion or another. They discussed in great details all the steps that were required for the introduction of the new spelling program: from how to inform the parents, to practical details about making the material required for teaching the students, like flash cards, posters, and strategies to make sure that the students kept track of their material. They also reviewed the process of assessing their students and placing them in ability groups. They discussed specific students who were more difficult to place into a group looking at the results of the pre-assessment and also discussed the possibility of having ability groups across classes, to ensure that the groups were of consistent size. Each teacher participated in the discussion following her own style and personality. Some were expressing their opinion throughout the discussion, others, spending the first part of the discussion listening to their colleagues as if gathering information before really entering the conversation. There was a feeling of camaraderie and trust among the participants, as they did not seem to hesitate to ask each other questions, or bluntly say that they had not understood some concept or ask for help with any aspect of what was discussed. The last part of the PLT meeting was spent going over a common lesson plan for the following week. The third grade teachers at that school teach the same topics across classes each week and discuss teaching strategies, and what material to use.

One of the teachers was first-year teacher at that specific school. This brought a different aspect of the collaboration among those teachers. She did not seem to hesitate to ask questions and the team spent time introducing her to some of the programs that exist at that school, like resident visitors, or field trips that they usually have, related to the subjects they are teaching their students. The other teachers also asked questions when they were not clear about something and expressed their opinion freely. They shared ideas and teaching strategies, for instance, at the

initiative of one of them they discussed how to use songs to help students grasp the concept of main idea in a written passage, after they realized by the use of a formative assessment that their students had not grasped that concept fully. The argument here was to use something that students enjoyed to help them understand a concept.

They organized themselves to ensure that everyone would have the necessary material to be able to start the new spelling program (flash cards, bags, letter to the parent, etc.). They also agreed to delay the starting of the program, because some of the teachers did not feel ready and wanted to have more practice time with the entire classroom before starting to work in groups.

Focus on Results

One step that this team of teachers was going through as the observations were under way was to assess their students and use these results to place them into ability groups, as the new spelling program is set up for every child to start at their own level. The students took a pretest and were placed in groups with students who had achieved similarly on their assessment. The teachers discussed the students' results in general or specific students and helped each other organize their groups. They also created groups across classes when necessary (typically for the highest and/or lowest performing students), so that the group sizes would be consistent.

Besides getting organized for the new spelling program, the teachers from the observed grade 3 PLT also spent time going over results from formative assessments that their students had taken both for reading and math. They discussed how they were using universal screening and Dibbles to provide help to the students who needed help in reading. They shared their class's results on Blue Diamond assessments and discussed strategies to help their students learn the concepts that they had not mastered. They also shared how they felt about their students not performing well on specific concepts, which is an evidence of their collaborative spirit.

Focus on Learning

During this observation, the teachers showed that their main focus was on their students learning, not only in the way that they discussed the assessments, lesson plans, and strategies to help their students achieve, but also when discussing some of their success stories. Whether it was discussing a science project, where students had surpassed the expectation of the teacher both in the way they prepared by deciding their research questions, performed the research in the library and then in the presentation; but also in the student's interest and curiosity regarding a project on the justice system that they were working on in collaboration with a resident visitor. They discussed both how to help the students who were struggling but also mentioned using different passages and questions for more advanced students, ensuring this way that the high performing students also enhanced their knowledge.

SUMMARY OF GRADE 3 PLT

There was a real consensus in their answers to the questions of the ending interview that the teachers felt that they were better teachers thanks to the collaboration during the PLT. Their answers to the questions asked were strikingly similar. All the teachers valued this collaborative

time and said that they benefited from sharing strategies and ideas, and from coordinating their lesson plans. They also all concluded that their students benefited from the collaboration, in part because the teachers have more resources and the teaching is more uniform across the third grade classes, but also because the PLTs give the teachers more support. It is a shame that the observation period was so short, as witnessing other activities of this PLT would have led to a better understanding of their functioning.

GRADE 6 MATH PLT

WEEKLY OBSERVATION CYCLE

Highlights

"I am more efficient and organized. I enjoy teaching again," explained one of the 6th-grade math teachers when asked how her PLT has affected her work.
Another teacher praised her teammates for providing "an outlet for frustration" and pointed out the benefits of discussing student progress and providing challenge and remediation.

"You guys are rock stars!" exclaimed one teacher when the others had given her pointers on how to locate and use materials. Comments such as these reflect the collegiality and enthusiasm that drove the team's interactions throughout the weekly one-hour meetings observed on five occasions between January and April of 2010.

This PLT was selected for observation partly because the school's principal had identified it as a high functioning group. Indeed, this PLT was a comfortable forum in which ideas were shared and experiences were validated. The observed meetings spent a substantial amount of time reviewing common assessment results and locating additional assignments for students who need extra help or enrichment. They also planed ahead for each math unit and prepared for an EOG review program towards the end of the year.

Beyond the collegiality and the supports for the tasks of teaching, how might this well regarded PLT build upon its strengths to perform at even higher levels and help its members continuously improve instruction?

Background

The PLT consisted of four 6th-grade math teachers at a middle school in WCPSS. However, due to multi-tracking, one member was always tracked out, and only three members attended any given meeting. The PLT was established five years ago, and the newest member joined two years ago. All of the members had at least eight years of classroom teaching experience.

The role of facilitator was loosely performed by a team member using a laptop computer to type notes into a template organized around the three questions articulated by DuFour et al. (2007): *What do we want our students to learn? How will we know they have learned it? What will we do if they have not learned it?*

During the meetings the members frequently accessed relevant materials, either on a laptop or desktop computer, sometimes printing them or sharing them with each other electronically.

It was not always clear that the teachers were following a detailed agenda, but they scarcely ever fell into small talk or found themselves at a loss for conversation related to their work. While the conversations were occasionally discursive, the teachers never seemed to lose sight of the importance of using their time as a group to improve student performance.

A Description of the Team in Terms of the Six Characteristics

The six defining characteristics of a PLT recognized by the Wake County Board of Education are:

1. Shared vision and values
2. Supportive conditions
3. Shared leadership
4. Collaborative culture
5. Collective inquiry
6. Focus on results

A search for these characteristics in the PLT's practices indicates that its greatest strengths are its *collaborative culture,* its *supportive conditions,* and its *focus on results*. To a lesser but noticeable extent, they manifested *shared vision and values* and exercised a degree of *shared leadership*. Finally, while the team practices *collective inquiry*, it is this characteristic in which they might find their greatest potential for growth and improvement.

Collaborative culture

There was a lot of energy in the group, much of it directed at and seemingly derived from a sense of collaboration and eagerness to help one another. Each of the teachers had something to share – either in work product or ideas – and was receptive to the offerings of the group. "Our goals are to all be on the same page… provide effective lessons … assess and meet the needs of all our learners," one of the teachers said. It is in this team spirit that the PLT members help each other prepare their remediation plans for each unit.

Another member explained, "I love to discuss, create and share ideas about how to teach better. It makes my job easier and more enjoyable in the long run." Indeed, on numerous occasions team members shared lesson plans or other materials they had discovered on their own.

As a team they have used the PLT time to develop a pre-assessment for each unit which enables them to move students into enrichment activities rather than be instructed in material they have already mastered. This team's collaborative culture enables work across their grade level with other subject matter teachers to provide EOG review activities more efficiently than if they only considered math instruction in their logistical planning.

Focus on results

The team routinely reviewed assessment results to identify the learning objectives on which their students – as a grade or as classroom groups – performed poorly. Looking over the distracters on Blue Diamond assessments, for example, the teachers speculated about what could have caused students to choose incorrect answers. This led to differentiated compilation of additional problems, based on individual students' performances. The team spent the largest portions of its time working in this fashion. For example, during the final two observations, almost half of the

PLT time was used in reviewing assessment results and a quarter of the time was used compiling the items for differentiation.

During one of the earlier observed meetings, the teachers organized their plans to use these results for EOG review activities for the weeks prior to testing. Over the course of the next few meetings they continued compiling assessment results and activities, frequently consulting the curriculum and the calendar in support of the planned EOG review. They were aware of the correlations between performance on Blue Diamond assessments and success on EOGs, and explained to this observer that they take these data to parent conferences and SST meetings.

There is a limitation worth noting. While Blue Diamond played an important role for the PLT, the information generated by its reports rarely focused the teachers' attention on students' conceptual understanding or generated descriptive feedback in a way which would define formative assessment. This limitation may affect the team's practice of collective inquiry as described below.

Supportive conditions

This PLT supports teacher's common planning time and students' mastery of the math content. The one-hour common meeting time provided each week by the district for the PLT helps ensure that the team members are not working in isolation from one another and helps maintain consistency throughout the school year. Furthermore, their classrooms are located together on the same hallway, and each teacher is supplied with a networked computer. A factor which degrades the supportive conditions is that, due to multi-tracking, one of the teachers is always absent from the weekly PLT; this requires bringing teachers up to date on missed developments when he or she returns from tracked-out time, and it detracts from the opportunities to use common assessment.

The teachers seek to support student mastery in their use of Blue Diamond assessments, which offer common formative assessment opportunities with prompt results and item-by-item reference to the state's learning objectives. Along with Blue Diamond, other classroom assessments help teachers organize students for the enrichment and remediation programs they have collaboratively designed and which take place during the regular school hours. In addition, teachers are available to students in the mornings before school starts.

Shared leadership

This is a small team which manages its agenda rather informally. Everyone always seemed on board and up-to-date about the proceeding of the meetings and the action steps to be taken. The teacher facilitating a meeting never presumed or forced any issues, and consensus was the norm.

Collective inquiry

The team showed some elements of collective inquiry by systematically working together to solve problems and develop assignments.

While some practices of collective inquiry can not be counted as absent simply because they did not arise in one of the observed meetings, other elements might have been expected to present themselves more readily, if they were practiced to any appreciable degree. For example, on a number of occasions, the teachers shared classroom experiences in which they had artfully created teachable moments – valuable openings to delve into students' engagements, struggles, and triumphs with key math concepts. Yet the PLT participants – apparently feeling the need to discuss many assessment items – rarely explored those classroom experiences or their instructional implications. In this way, lack of scrutiny left certain strengths unrecognized, and – although this team of colleagues has apparently established a healthy dialogue – rarely did the teachers venture to "challenge and question each other's practice in spirited but optimistic ways," as suggested by Sparks (2004). Likewise, the PLT team rarely, if at all, shared samples of student work, which might have helped generate fruitful discussion about student learning. Results of multiple choice assessments were usually spoken of in terms of procedural errors, rather than the underlying math concepts which equip students to avoid over-dependence on memorization of procedures.

Shared mission, vision and values

The team members seemed to be in agreement about what they were trying to accomplish and how they wanted to do it. But whether or not the team members shared a vision of what it looks like when children are engaged in math problem-solving and how a student expresses proficiency and asks good questions was not clear from the observed meetings. Their attention to learning objectives needing remediation was largely determined by an item analysis report. Of course, this is one of the ways Blue Diamond can serve as a formative assessment tool. But, more deliberate attention to the vision, mission, and values of good math instruction might help shed additional light to help these teachers put these data to even greater use.

SUMMARY OF GRADE 6 MATH PLT

This team's collegiality and concern for student performance were important ingredients of a productive PLT. Their greatest strengths were that they were collaborative, supportive and focused on results. More deliberate attention to their shared vision and values might help them isolate some additional practices and to apply their considerable strengths to creating an atmosphere of collective inquiry. Indicators of such growth would include the sharing of student work and more in-depth discussions of classroom learning experiences and underlying math concepts. Participation of a math coach or an IRT might provide additional perspective on principles of good math instruction and help this team maintain continuous professional improvement.

Finally, the positive behaviors described above are more than the products of good cheer and affability among coworkers. From the moment each meeting began until the moment it ended, the teachers of the sixth-grade math PLT were attentive and diligent. Pure effort is not explicitly captured in the aforementioned list of six characteristics, but this team's efforts ought to be recognized by anyone who would seek to replicate its success or to improve upon its existing performance.

GRADE 7 LANGUAGE ARTS PLT

WEEKLY OBSERVATION CYCLE

Highlights

Two PLT team members sat quietly talking, waiting for the third and final member to arrive. Shortly thereafter, the door slammed open and a disheveled figure burst into the room. The teacher tossed his stack of tests onto a nearby table and cried in a loud and desperate voice, "My class average is a 65! I need some help!"

This scene was striking to this observer for three major reasons. First of all, when I was a classroom teacher 15 years ago, you didn't tell anybody if your class average was a 65… you wouldn't want anybody to know. Secondly, you would never cry out in public for help, no matter how badly you were struggling. We were too afraid that word of our difficulties would get back to the administrators, who might conclude that we couldn't handle the job. Thirdly, even if you wanted help, finding an in-house support group to assist you wasn't even a possibility. This simple incident spoke volumes about the fundamental paradigm shift inherent in the PLT concept. Instead of individual teachers working in isolation – with varying degrees of success or failure – there was evidence of an entirely different culture that strayed from the traditional model… a culture built upon the cornerstones of teamwork, collaboration, and support.

Background

The 7th Grade Language Arts PLT was observed on every "Wake Wednesday" from January to March 2010. The series of observations was concluded with a focus group interview in April, at which time the observer was able to ask probing questions and seek clarification about the team's activities. Since this was the school's first year of operation, this was the first time this particular group of teachers had the opportunity to work together.

The PLT consisted of three highly qualified seventh-grade language arts teachers of varying experience levels. The group leader was a seasoned veteran approaching retirement. She had accumulated a vast wealth of supplemental educational resources over the years, which she readily shared with the others. She frequently attended workshops and staff development activities, served as the department chair, and was actively pursuing National Board certification. This group leader was joined by a tech-savvy first-year teacher, as well as a second-year male teacher who also served as the school's basketball coach. On rare occasions the team was joined by other professional staff such as a special education teacher and/or an academically gifted resource teacher.

The PLT meetings occurred in the team leader's classroom, where a SMART board was connected to the teacher's computer. On most occasions, the first-year teacher recorded minutes on a laptop computer while the third teacher served as timekeeper. All agendas and meeting minutes were posted on a shared drive, and the team routinely emailed those documents to the observer for his review.

In an overall sense, the atmosphere surrounding these PLT meetings was similar in many ways to an informal gathering of trusted friends. The members were always relaxed around each other, and they openly shared their thoughts and feelings. The teachers in the group were willing to voice concerns about themselves and about their students; for example, a teacher would not hesitate to share that his class average was a 65, or that she was unable to successfully manage student behavior towards the end of the school day. The group dutifully produced an agenda to post on the shared drive per administrative directive (sometimes weeks after the meeting was over), but an official agenda was rarely used to structure the meetings and the ambiance was comparable to a family dinner. In the opinion of this researcher, this pervasive atmosphere of trust and mutual respect enhanced, rather than detracted from, the group's effectiveness.

PLT Characteristics

WCPSS has identified six characteristics of high-performing PLTs. These include a shared vision and values, collaborative culture, collective inquiry into best practices, a focus on results, supportive and shared leadership, and supportive conditions. This PLT demonstrated all six characteristics to differing extents.

Shared vision and values. When these teachers were asked individually about the group's vision and values, all three members replied that the goal of their PLT was to improve EOG scores in reading. This was a goal the group members pursued wholeheartedly; preparation for the EOGs was a frequent topic of conversation. This desire to improve test scores was a key factor in their educational decision making. The group scoured the internet for practice questions at frequent intervals. They discussed which Blue Diamond questions were most similar to the ones that typically appeared on the EOG. They invested time teaching their students test-taking strategies, such as "highlighting key phrases" and "process of elimination." In one meeting, they dismissed a series of practice questions designed to stimulate critical thinking because "there aren't very many of these on the EOG." Instead, the group chose to focus on practice questions that required inferencing. Their ambition, however, was well-intended. It was clear that the teachers wanted to improve reading and writing skills, which should be the goal of every language arts teacher. The EOG, therefore, was viewed as the evaluation tool that would determine their level of success or failure.

Collaborative culture and collective inquiry into best practice. The group clearly excelled in this area, and the diversity of this team was its greatest strength. As noted earlier, the group's leader frequently attended staff development activities and had been actively collecting educational resources for approximately 30 years. She was generous towards her teammates and was always eager to share materials from her collection. The leader also had a passionate interest in educational research, would often summarize the results of those studies for the other team members. Many times she was observed providing copies of publications she thought the group would find helpful. In short, virtually all of her professional decisions were supported by solid research, and those decisions supplemented by her extensive practical experience within the classroom. The other teachers had different yet valuable strengths. The tech-savvy first-year teacher, to name a few examples, would show the group how to generate various Blue Diamond reports, suggest possible applications for the school's laptop carts, or demonstrate how to upload

students' essays to a SAS website for free structural analyses. The coach, meanwhile, excelled at classroom management and assisted his fellow teachers with discipline and behavioral issues. Together, the group was able to combine their individual knowledge bases, pool their skills, and collectively develop plans of action to carry back in their classrooms. This free exchange of information could only occur within the context of a safe and supportive environment; as human beings, teachers become emotionally vulnerable when they "go public" with their personal shortcomings and failures. The pervasive atmosphere of camaraderie and trust, therefore, was the "oil" that made meaningful communication possible within the team.

Focus on results. The group administered Blue Diamond tests and invested time discussing the results. As the quarter progressed, the tech-savvy first-year teacher became increasingly proficient at generating various types of reports that the group found useful in evaluating their efforts and guiding instruction. More specifically, discovering how to generate an individual "item analysis" was particularly interest to the group members. The leader was particularly excited about these reports. In the past, she had habitually used her class average to evaluate her level of success, and wasn't even aware that it was possible to disaggregate the formative assessment results until she was shown how to do so in March. The questions that received the most comprehensive analysis and discussion from the team were the Blue Diamond items that the teachers believed were most similar to the items that would appear on the EOG.

It is worth noting that the group did not rely solely on the districtwide Blue Diamond assessments when discussing data; team-developed common assessments were discussed as well. It was clear that the group preferred to discuss Blue Diamond data because the campaign software made it relatively easy to generate reports. The team-developed assessments, therefore, were typically viewed as a substitute. At five different meetings the teachers expressed displeasure because their Blue Diamond data were not yet available. Apparently there was one individual in the school charged with scanning the tests, and the PLT members reported that the person refused to scan the tests until she had collected the series from everybody. Unfortunately, this ineffective system made it possible for one teacher to delay the dissemination of the results for every other teacher on the faculty. Logic dictates that the Blue Diamond tests be scanned on an ongoing basis, with a sense of urgency, so that the teachers could have the results before they move forward to other units of instruction.

Supportive and Shared Leadership. This PLT revolved around one dominant leader, who was respected to the point of reverence by the other team members. On one occasion the meeting was cancelled because the leader couldn't attend (she had been summoned to the office for a parent conference). However, the leader herself remained an active learner, even in the twilight of her career. She was consistently observed seeking new knowledge, effective strategies, and technical skills from her teammates. Throughout the entire observation sequence, the leader never once conveyed an air of superiority by virtue of her extensive experience; rather, she appeared in all respects to view her colleagues as fellow professionals with something meaningful to contribute. It is also worth noting that the other PLT members did assume temporary and limited leadership functions when the group discussions catered to their particular area of expertise. Yet during the meetings any group member seemed comfortable putting items on the table for discussion or, when necessary, restructuring the original agenda to address a more pressing need.

Supportive Conditions. The administration ensured that the PLT had a time and place to meet. The meeting location was agreeable to all team members, as the leader's classroom was in close proximity to the others. It was also advantageous in that the group had ready access to technology (including a computer, internet access, and a SMART board), as well as the leader's stockpile of educational resources. The administration had also established a schoolwide system for remediation, in which the teachers tutored struggling students before school. This particular PLT was charged with teaching grammar on Tuesday mornings, which was seen as a shared responsibility.

On a final note, this PLT often scheduled other times to meet outside of the "Wake Wednesday" time slot for collective lesson planning, as well as for grading essays and projects as a team. During the focus group interviews the PLT members explained that the school's administrators did not allow teachers to formalize lesson plans or grade papers during the early dismissal days. Instead, the teachers were directed to use the time exclusively for discussing data and/or the results of common formative assessments. The teachers in this PLT did their best to adhere to this directive, although they expressed a desire for more flexibility in using their protected meeting time.

SUMMARY OF GRADE 7 LANGUAGE ARTS PLT

Over time, it became clear why this PLT was identified as being exceptionally strong and high-performing. As noted earlier, the team's greatest strengths were in the areas of "collaborative culture" and "collective inquiry." The team members were united by a common desire to provide high-quality instruction that would, ultimately, improve reading scores on the EOG. But because their individual strengths and weaknesses varied widely from teacher-to-teacher, an open exchange of information was necessary for each teacher to function at the highest possible level within the classroom. In this case, the educational value of the team exceeded the net worth of three individual teachers working independently.

In the final analysis, it is important to underscore that the group's extraordinary level of cohesion and trust is what made their teamwork so successful; the chemistry that existed within the group became increasingly evident throughout the observation cycle. For lack of a better term, the teachers collaborated so successfully because they sincerely liked each other. During the April observations, the teachers often expressed concern that their team would be divided the following year. As one teacher noted, "we've got a good thing going here, and we want to keep it." It is reasonable to conclude that every teacher had become emotionally vested in the success of his or her teammates, as well as the performance of the group as a whole… *E Pluribus Unum* [out of many, one].

GRADE 8 MATH PLT

MONTHLY OBSERVATION CYCLE

Highlights

"Working in the PLT has made me a more thoughtful teacher. I enjoy listening to others' problems/suggestions and know that I am not alone. It is a good sounding board." The group stated that the PLT offered them the opportunity to share successes and what was working. They also liked the time together to actually focus on how the curriculum was taught. It was dedicated, focused time. It also gave them the opportunity to work with others when there were issues related to students' learning. One team member stated, "My students' grades have increased overall. These increases can be seen in the overall grade and in their Blue Diamond grades as well. My relationship with my students has improved as well as I was given several classroom management strategies."

Background

Due to the fact that this PLT was in a year-round school, it had a different mix of 8th grade math teachers at each meeting as various members tracked in and out. The changing dynamics of this PLT provided certain challenges. There was also a special programs math teacher in the PLT. The PLT met in the media center with all of the other PLTs in the school. Team members felt this was not an optimal setting for the work of the PLT. They preferred to work near or in their classrooms, closer to their resources. The makeup of the team was different at each session, because of the year-round status. Communication with members who were tracked out during meetings was shared through notes and conversation. The team consisted of seven members. There was always a laptop present to record meeting notes.

PLT Characteristics

The goals of this PLT included having time to collaborate, and to be able to focus on the needs of the students as well as the teachers. The fact that they were on different tracks made it hard to find a common planning time. This PLT allowed them an opportunity for collaboration. The monthly minutes reflected the use of guiding questions to help direct discussion. The meeting notes and observations revealed that quite a bit of time was spent on preparing for the EOG. The team supported each other by sharing information to be included in those packets.

Monthly observations did not allow the opportunity to see all of the characteristics of a PLT displayed at each meeting. Visiting at the same time of the month led to the same types of information being discussed at each meeting. The review of meeting agendas and minutes did reflect some of the characteristics of PLTs as defined by WCPSS. Most importantly, the monthly observations did demonstrate a focus on learning in a collaborative culture with an emphasis on results.

While there was one defined group leader, the group continued to function quite well when she was tracked out. The group members divided the leadership role in the leader's absence. The

review of the weekly meeting agendas reflected *shared leadership*. There were different team members assigned to different roles each week. Each team member participated in the PLT and took turns leading the discussion of strategies that worked with their students. Group members shared responsibility for taking notes and sharing them with tracked out teammates.

A *collaborative culture* was demonstrated at each meeting observed. Each group member was an active vocal participant in the PLT. Members were very comfortable sharing with their colleagues, especially about the difficulties students were having with key concepts. They were also eager to share strategies that had worked well with students. One of the benefits of having different teachers covering topics at different times due to the year-round schedule was that teachers are able to identify concepts students were having trouble with and share that information with colleagues who were about to teach that material. Interview questions revealed that most team members and their students were benefiting from this collaborative culture. It was repeatedly shared that teachers did not feel alone in teaching. A team member new to 8th grade math stated:

> *"…collaboration has greatly influenced my students' learning this year because it is my first year teaching 8th grade math. (In years past I taught 8th grade science and 7th grade math/pre-algebra and science.) I have been able to get materials and a 'heads up' on what to expect as far as what the students usually struggle with and what they usually find not as difficult from some of my team members."*

Other team members harbored different viewpoints and perspectives. As another member stated, "…some of us have good ideas and things to share but don't because they somehow feel that the rest of us will be as successful as they are. I wish there was a way that we could reach them and help them to realize that we are all in this together."

A *focus on results* was present at each observed meeting. Monthly observations showed how the PLT used results to help guide some of their discussions. The team often referred to Blue Diamond results and residuals to identify and support the discussion of areas students needed to improve. They identified problem areas and discussed what strategies had been tried. Team members freely shared new ideas and strategies to help students.

Each team member focused on the areas in which their students had the most need. The team discussed, in depth, where their students were being successful and where they were not. PLT members spent some time at each observed meeting sharing web-based resources used to assist them in their teaching. The team reviewed test development sites, and shared the ones they used. Tools that were used for assessment development were also discussed during the meeting. They also reviewed sites for resources they would need to teach online. One team member shared useful internet sites that contained additional resources. All team members were engaged and seemed to be interested in the information being presented by their colleagues.

SUMMARY OF GRADE 8 MATH PLT

This PLT, as many do, has its good characteristics and some common issues that come with most collaborative groups.   Interviews revealed that the PLT did not discuss individual students.

During observations, "kid talk" was never done. This group focused more on assessments and results rather than on discussing individual students. Many discussions were about how the team would implement the inclusion practices in the 2010-11 school year. Team members had many questions for the team member experienced in teaching special populations of students. They also had many concerns about how to serve these students with limited resources and opportunities for professional development, fearing that they may not have all the tools they need to be completely successful. There was a strong sense of "we want to do what is best for our students to succeed," but an excerpt from the individual interviews revealed:

> *"Truthfully, we get together and compile common assessments that we rarely use. It is almost as though we share things we would do, but go back to our own little comfort zone. A few of us get together after PLTs and use what we share. Some of us bring our own agendas and rarely use what is suggested..."*

While other team members gained more personal benefits from the PLT:

> *"I do think working in the PLT has made me a better teacher. Since we meet each week, it has helped me with time management. I have been able to get some planning done ahead of time and collaborate with other teachers about what activities have worked for them or not worked for them. This works especially well for us due to the way we track in and out, there are times when other teachers are ahead of me. The PLT has also made me more aware of what concepts need more attention and which ones not so much. I also think it has held me more accountable. I know each week when we are going to talk about data and scores and I know that these things are not being overlooked by other teachers, so I want my data to look good."*

Overall, it is reasonable to conclude that PLT membership was helpful to the teachers, and they were appreciative of the time they had to collaborate to improve their instruction.

HIGH SCHOOL CIVICS & ECONOMICS PLT

WEEKLY OBSERVATION CYCLE

Highlights

"I think involvement has helped me grow as a teacher because I can see/use other teachers' activities and get feedback on my own teaching. It also helps me stay on track in terms of pacing and rigor. Additionally, I appreciate the support." This comment from one of the participants in a high school Civics & Economics (C&E) PLT includes many of the goals of PLTs in WCPSS: collaboration, mutual assistance, maintaining academic rigor, and improving professional skill. The PLT includes both veteran and beginning teachers, teachers who only teach C&E, and teachers who teach other social studies courses. There are also teachers who interact frequently because their classrooms are adjacent to one another and teachers who work at some distance from one another. This particular PLT makes good use of technology, both for instructional tasks, as well as for communicating with one another and for providing a means for storing information and documents that the entire group will need later. In addition to these characteristics, this PLT is marked by a sense of urgency: time within the PLT is well-used and focused on the work that the PLT has decided needs to be done. All members of the PLT are expected to participate in the discussions held by the group and in sharing good ideas, activities that have worked well, and learning resources that individuals have found to be helpful.

Background

The C&E PLT at this high school is made up of six teachers, some of whom teach only C&E, while others teach C&E in addition to other courses. While most members of the PLT are experienced teachers, one member was in his first year of teaching.

PLT Meetings

The PLT met regularly on Wednesdays, beginning at 1:30 and continuing until at least 2:30, although the discussion often ran over the allotted time. The PLT facilitator always had an agenda that had been posted on Blackboard so that all members could view the agenda in advance of the meeting. In addition, one member of the group kept official minutes, which were also posted on Blackboard. In addition to these documents, the PLT also had easy electronic access to the Blue Diamond site, including a variety of reports related to C&E assessments, as well as to the Standard Course of Study, and other documents. It was clear from the discussions that PLT members made frequent use of electronic resources for their classes, including a variety of web sites that carried resources useful for the teaching of C&E topics.

The weekly meetings followed a fairly standard procedure. The meeting was opened with a review of the agenda, allowing members to add topics of particular interest or timeliness. Typically the minutes from the prior meeting were not reviewed, but administrative announcements or decisions, if any, were made. Parenthetically, it is interesting to note that the school's social studies department chair relied on the PLT structure to ensure that administrative

issues could be announced and discussed. Following the announcements, the PLT launched into the items on the agenda.

A major activity—one which consumed a good deal of time at each meeting—was a review of assignments, activities, worksheets, and instructional aides related to the topic that would be taken up in the next week. Typically, these items had been posted by one of the members of the group after it had been successfully used in his/her classes, either during the current semester or in previous semesters. Members of the group reviewed the item in some detail, making suggestions for variations that an individual might have made, commenting on how the resource was received by students, and pointing out ways in which the resource might be improved. In the course of these conversations, members also shared other resources that they had found helpful, and discussed the schedule of course work. While there was no effort made to ensure that each class was in exactly the same place, members of the group created time windows within which assignments would be made, projects would be due, and tests (either Blue Diamond or unit tests) would be given.

Over the course of the observations, there was little conversation in the PLT about individual students. It is true that some individuals were mentioned, usually in an anecdotal way as illustrative of a particular issue (parent communication, for example). Sometimes there would be shared chagrin that a particular student was still displaying behavior that had been counterproductive in the past, but these comments were intended to elicit some measure of sympathy for the teacher or to inject humor in the conversation. There was no attempt to discover what had worked well with a student in the past, nor was there, for example, a brainstorming session about ideas for getting low-performing students on track or high-performing students engaged. Indeed, students per se actually accounted for very little of the time or attention of the PLT.

Similarly, the PLT spent little time on examining the results of their work. On a few occasions, Blue Diamond reports were examined. It seemed clear that some members of the PLT were unfamiliar with the various Blue Diamond reports, as evidenced by the fact that they were unaware of which reports were available, what they might learn from different reports, and so on. It appeared that the Blue Diamond assessments were not perceived as formative in nature. That is, members of the PLT did not modify or alter instruction based on the results of these assessments. Indeed, because of the schedule of Blue Diamond corrections, the classes had already moved on to new topics by the time results were returned. It is true that teachers expected students who had performed poorly on Blue Diamond assessments to participate in review sessions during Smart Lunch, and there was some expectation that students would correct their mistakes on Blue Diamond and other assessments. However, it appears that most assessments were not used formatively by the teachers. The members of this PLT would benefit from some formal staff development in both mastery learning models and uses of assessment data and activities. Within the group, no one seems to have this expertise. It seems clear also that members of this group would welcome this opportunity for professional growth. Thus, the PLT stayed focused on work students would be expected to do: assignments, projects, and tests, but not on the results. That is, it is assumed that the individual teacher will be able to use the results (whether for grades or for some other purpose) in ways that seem appropriate for him/her. It should be mentioned that on the first semester EOC tests, students at this school did quite well.

Nevertheless, it is not clear how the PLT adds value to the teachers' individual efforts to work with students at either end of the achievement spectrum whose needs may not be met in the regular classroom. It is true that the school has instituted Smart Lunch as a way for students to work toward grade improvement. Whether this provides a re-teaching opportunity or how that re-teaching occurs is left up to individual members of the PLT.

Members of the group value their participation in the PLT. One teacher — a beginning teacher — stated that he would not have been nearly so successful without the support of the members of his PLT. They provided formal guidance in his selection of materials, helped him stay on pace with his classes, and provided informal camaraderie as he adapted to his new responsibilities. At the same time, a teacher with many years of experience said that she gained a great deal of professional confidence and feedback from her colleagues. They were able to help her improve the work she designed for her classes.

The leadership of the PLT was shared among the members. While there was a facilitator and a recorder for the group, it was clear through conversation and through sharing materials that leadership was a shared function. At some point during the observed meetings, every member of the group felt free to bring up a topic that was of particular importance to him/her. The facilitator was responsible for the general structure of the meetings, but most members felt free to take a different position from him when specific topics were being discussed. It was clear, however, that the PLT had come to rely on his organizational skills for organizing the agenda and for keeping the meeting on track.

SUMMARY OF HIGH SCHOOL CIVICS & ECONOMICS PLT

At this school, it is clear that PLTs are an important structure functioning below the department level. While there was only one occasion when the PLT was observed by an administrator, it was interesting to note that there were also visits from the school's test coordinator, who reviewed the first semester EOC outcomes with the group, and with the librarian/media specialist who is assigned responsibility for C&E instructional materials and resources. The fact that such a responsibility has been assigned to this person is evidence of the support provided by the school's administration to this PLT. This PLT provided evidence of the power of the PLT structure to facilitate the work of learning and teaching, to increase communication among teachers, and to ensure that students — regardless of the class to which they are assigned — receive a thorough grounding in the content of the course.

HIGH SCHOOL ALGEBRA I PLT

WEEKLY OBSERVATION CYCLE

Highlight

"Our amazing collegiality is the one characteristic of our PLT that should be remembered and shared with other teams." This quote from the focus-group interview of a WCPSS high school Algebra I PLT summarizes the observational study of this PLT. The statement was made by a co-leader of the team who had held this leadership position for the entire four years of the team's existence. The collaborative culture of the group was quickly shared and adopted by new members as well. Two teachers, both new to the team and the school, supported this statement. One, who was also new to North Carolina, said, "We are family. I know that they (the team members) have my back. Still they let me go in my room and teach without interference." The other new member said, "I was at (his last school name) for four years, and I never felt the sense of community that I feel here." This spirit of collaboration has facilitated an acceptance of standardization of practice in all Algebra I classrooms. All teachers use a common pacing guide with the same homework assignments and warm-ups. They also have a common assessment program where they all give the same test, quizzes, common assessments (common assessments developed by team members on review topics), and benchmark assessments (USA TestPrep).

Background

The PLT that was observed in this case study was both recommended by the principal as exemplary, and also due to the fact that their EOC performance and growth measures have been among the highest in WCPSS for several years. The composition of the team is all teachers assigned to teach Algebra I, and the team members change each semester. The current team has a total of nine members, including three who were new to the team and had joined for the second semester. The two co-leaders have served in this role since the team's beginning four years ago. Two other teachers have been on the team since its beginning, one of whom is a special programs teacher. A fifth teacher has been on the team for two years. In addition to these nine team members, two student teachers were included during their assignment to the school.

Ten observations of early-release Wednesday meetings were made by the principal observer as well as two additional observations by two other members of the E&R team who prepared this overview report of WCPSS PLTs. The principal observer also conducted a focus-group interview with this PLT. Three questions required unidentified written answers followed by eight questions that were discussed as a group.

PLT Characteristics

The Wednesday meetings began promptly after school at approximately 2:10 and ended between 3:05 and 3:10. All members gathered quickly. Members took turns bringing snacks (considered an important ingredient of the meeting). There was no written agenda, but an unwritten expectation of what would be discussed. Minutes were taken on a form that looked like an agenda and posted on a schoolwide shared drive. This form had a place at the top for stating the

purpose and expected outcomes of the meeting, but these spaces were left blank. At times, the meeting had the feel of a department meeting with the co-leaders announcing, reporting, and asking for feedback on such topics as student course referrals, the school planning guide, requests from administration, and reports from the countywide department chairs' meetings. In fact, the second observation was of a department-wide meeting to discuss the math section of the school planning guide, to learn of upcoming math curriculum changes, and how second semester would be organized.

The expected topics of discussion at each meeting were:

- How are the students doing on the material this week?
- How did they do on the test or quizzes?
- Which questions (topics) gave the most trouble?
- Was there enough time for the tests?
- How did you use your class time?

After one of the leaders posed a beginning question, there was a free flow of discussion and sharing around the current week's instruction and student performance on assessments. Team members would share teaching strategies, games used, test items with successful or unsuccessful results. Team members would jump up and use the white board or SMART board to illustrate their points. This discussion of how the week had gone would be followed by questions such as:

- What is on the pacing guide for the coming week?
- What should we emphasize?
- When should we give assessments?
- Are you ready to give the next test?
- What topics should be on the next common assessment?
- Should we place more review in the warm-ups?

The leadership of this team is clearly established. All team members expect the co-leaders to be the resource for final answers and direction. Yet a collaborative culture has been built where most team members feel comfortable posing questions and sharing ideas and suggestions. The leaders solicit help with the curriculum guide and assessments. Talents and skills are recognized in team members, which lead to encouragement to take on certain tasks. For example, one team member was complimented for writing great warm-up questions, and now all the team members use her warm-ups daily. A team member can influence the overall instructional plan as well. An example is when a team member questioned the amount of topics covered in an upcoming unit. A team discussion led to a breaking of the upcoming unit into more parts.

There are two team members who spoke little to none during the observed Wednesday meetings. One said to the principal observer before the meeting began, "I'm young. I lay low and do what I'm told." The other is the special programs teacher who said during the focus-group interview that he is not a math specialist and defers to the experts. Despite the lack of verbal sharing during the meetings, there was evidence that both these team members were respected, and that they did have a behind the scenes influence on the Algebra I instruction. Before one meeting began, the young teacher was observed sharing teaching strategies with one of the student teachers. Several times, one of the leaders shared ideas that she had used at the urging of the special programs teacher.

The focus-group interview supported the conclusion that the strength of this team is not that they meet for an hour once a week, but that the bonding that the once-a-week meeting facilitates has led to a team-work approach throughout every day. As another team member said, "we are open to admit that we need help and that others may have a better strategy. We don't teach out of our file cabinet." The work of teaching Algebra I happens between the Wednesday meetings, and this team shares all week. They e-mail each other with questions. They share handouts and other materials that they prepare. They talk in the hall. They have additional planning meetings.

It was observed that most of the Wednesday discussion was general in nature. Statements such as:

- My students did well or didn't do well on a test.
- They missed number six.
- They don't understand how to factor.

In 10 observations, only two observations were made of discussing specific students. One of the new teachers asked for help meeting the needs of two English as Second Language (ESL) students, and at a later meeting help with two students, who were frequently suspended. The team gave several ideas for targeted help for the ESL students, but seemed at more of a loss with what to do for the suspended students. When questioned at the focus-group interview, the team members reported that they talk about specific students throughout the week and at an early-in-the-year meeting.

The form on which the team minutes are placed has a block at the top labeled, *The Big 3 for PLC* with these three questions:

1. What should each student learn?
2. How will we know if they did?
3. What will we do if they don't?

This team has standardized an answer to numbers 1 and 2. They have a common pacing guide and common assessments. They discuss number 3 weekly. Answers have included reteaching of the material, more practice in warm-ups, and extra help at Smart lunch. The WCPSS Board of Education definition of PLTs also states that teams will address the question, *what do we do if they do know it*? This team was never observed discussing enrichment. Smart lunch notices advertise remediation or enrichment, but this team said they had not implemented the enrichment piece yet. One team member said that students were invited to work on challenging questions as part of math team. Yet there is no evidence that these questions would purposefully enrich the current curriculum or help students prepare to move to an advanced course. When asked why there was no mention of students moving into Honors Geometry from Algebra I, the answer was "We don't keep them for registering."

SUMMARY OF HIGH SCHOOL ALGEBRA I PLT

This PLT strongly demonstrates the PLT characteristics of supportive conditions and collaborative culture. They have an accepted but unwritten shared vision and appear to hold the same values. Tasks are shared, but the leadership resides in two members. The team focuses on overall class results. Although students are tutored individually at Smart lunch, this team is at the point of their development where they can begin to dig deeper into assessment responses and make collective inquiry into how to meet the individual needs of all their students including enrichment opportunities.

HIGH SCHOOL ENGLISH I PLT

WEEKLY OBSERVATION CYCLE

Highlights

Two characteristics stand out for this English I PLT. First, each of the 10 PLT members was willing to look at real time issues. Second, members were willing and able to switch gears mid-way through the school year in order to address student learning needs in a better way. In one situation, PLT members decided that it would be better to try a different format; a seminar approach to addressing reading remediation, when it was discovered that some students in remedial reading were not making the progress anticipated. Each member's commitment to making sure students are prepared for 10th grade and working at grade level prompted the in-depth discussion, which included how the change would be perceived by the students, a review of relevant data, and an agreement to try a new approach.

Many participants commented that the PLT assisted them in their teaching and provided them with more tools to become effective teachers. They enjoyed learning from and sharing with each other. Each spoke well of the positive impact on student learning as a result.

Background

About three years ago, some of the members of this English I PLT group began meeting each Wednesday afternoon from about 2:15 until 3:15, and often later. With "Wake Wednesdays", this became a dedicated period of time carved in stone during which members felt they could really focus on student information and assessments and work to accomplish their mission "to serve all students, provide remediation and enrichment, and to create common assessments so that we can analyze the data to determine best practices and next steps."   Team meetings occurred in a classroom. Of the current 10 members, two are from Special Education, one is a Teacher Assistant, and the rest are English I teachers. Although not all members attended each meeting observed, notes were taken on a lap top and posted to their internal shared drive for members to review. This PLT was observed four times between January and April. Representatives from the Literacy team and Administration were also present to provide feedback on occasion.

The Six Characteristics of a PLT

Applying the six characteristics as noted in the Board of Education's 3610 R&P, observations revealed evidence of all characteristics to varying degrees. The observations suggest that collaborative culture was the strongest characteristic for this team, and expanding the ways in which they focused on results might be the greatest area of need.

Shared vision and values

It was evident that this group shared a commitment to improving student learning and to new approaches for instruction. Responses to the focus group questions clarified the vision of the group. Individual responses about the PLTs shared vision and values were varied but agreed in

general that the focus was creating common assessments for formative measurement and a collaborative approach to instruction. One individual mentioned using data as an ancillary approach and more than one mentioned increasing parent involvement as part of the vision of the team. Evidence that the vision and values were shared formally was not available. Rather, it seemed to just be an understanding within the group.

Collaborative culture

Many participants commented in focus group responses that the PLT assisted them in their teaching and provided them with more tools to become effective teachers. They enjoyed learning from and sharing with each other and discussing how formative tools might be used in their lessons. Each spoke well of the collaborative approach the PLT provided to them and the positive impact on student learning as a result.

Engagement with other colleagues and providing remedial opportunities for students often dominated the topics of discussion. A good bit of time was spent discussing schedules, pull outs, tutoring sessions, and who would perform which tasks. There was a genuine support of each other's efforts, as well as a noted concern for student reaction to changes in the approach to the curriculum. PLT members also collaborated around planning common lessons and sometimes common assessments.

Often members shared stories about individual students, sometimes commiserating about challenges students presented to them. Some offered ideas and support, although this was fairly limited. One member indicated more discussion of individual students was an area for improvement. "One of the things we've been disappointed in is the lack of ability to sit down to discuss specific kids as much as we think we should… it has been one of our goals all through the year to target specific kids... and we haven't done as well as we had intended to do. That's our number one mission goal for next year."

Collective inquiry

Collective inquiry, while related to collaboration, focuses in more specifically on learning as a group from analyzing the success of efforts, sharing successes and failures, and reflecting on each other's strategies. This PLT engaged in collective inquiry, with members discussing practices in which they engaged and sharing ideas as a group. Conversations about hindrances encountered by students, or research references related to successful techniques in reading or English, were observed a few times.

Another example of collective inquiry was the group's reaction and change based on low mid-year results. The group, with the addition of the intervention coordinator and a special education teacher to support planning, discussed possible changes and decided to move from a seminar approach to a remediation group. However, the same discussions pointed out areas for growth in this area. Possible solutions were based on personal beliefs rather than data or research. For example, one member commented that honors students should have Period 4 English because they are more motivated. "The remedial students are too tired and too eager to leave school by the time Period 4 rolls around." The members considered whether the placement of the class

made a difference on results. However, all that was observed were statements of inquiry about the issue with no research proposed or sought to support the hypothesis.

The group could also improve in terms of their depth and sophistication in this area. Studying the success of their efforts in a more purposeful way with more varied and frequent assessment would be a next step for this group's development. Blue Diamond or common formative assessment results could be helpful tools in monitoring the success of approaches more directly and more frequently. Discussions of current practices or ideas for improvement did not have a great deal of depth or reflect the application of new ideas. Of course, it is possible that such discussions occurred on weeks when we were not present.

Shared leadership

Leadership was shared by the department chair and the PLT chair, who had very different styles as group facilitators. Both focused on the perceived problems, some results, and possible solutions. However, one ran the meeting in a more laid-back conversational style and relied on data at a surface level; the other had a more structured approach and relied more on digging deeper into district-wide and other data to help resolve issues.

The agenda was generally in the form of a list of items to be discussed. Meetings usually started and ended on time. However, all members were not always present, and some members came late or left early on more than one occasion. At least one person had a role in the school that meant he had to leave a little bit early on a fairly regular basis.

In general, the group exhibited cohesive qualities with a focus on student achievement for the 9th grade students. While the group's general focus was English I, a big emphasis became remediation for 9th graders. Issues addressing honors students were only periodically mentioned. The involvement of those who worked primarily with honors students was peripheral at best when remediation became the focus. For example, in one meeting, one participant physically stood on the periphery of a conversation that was being held.

There seemed to be a sense of urgency to use the time available to complete an agreed upon goal of providing common assessments. In fact, during one session the comment was made, "we have to work on these assessments before we lose the Wake Wednesdays." The group often worked on assessments or curriculum planning as small groups during the PLT meetings. At least two of the members floated from group to group—these members seemed less involved in the conversations.

Focus on results

In PLTs, data such as formative assessments are to be used to assess the effectiveness of instruction strategies and practices. In this PLT, data were used, but observed data analysis was limited to EOC results or practice exams. EOC scores from the prior spring were used to target students, and EOC practice tests were used as midterms to help measure the student progress and to anticipate a trajectory. Comments like, "we need to get the honors kids up to a Level IV" were expressed, but there was little discussion of a process or the application of successful techniques for achieving that goal.

The focus on results was strongest as it concerned getting the remedial students to grade level. There was certainly excitement and some engaging exchanges at times, but no data analysis was observed at the meetings during the monthly visits. At one meeting, group members were asked to return with their student data, so it is likely the PLT reviewed data at least occasionally. It was noted that scores might not be where they wanted them to be thus precipitating a change in direction of instruction. However, no discussions of trends or data from multiple sources were observed. References to central services administrator support and information were made, giving the impression that there was some intentional discussion regarding student results and using those results for future decisions.

Some teachers in the PLT appeared to be struggling with how to best use Blue Diamond assessment results, while others were more comfortable with their use. One concern was how Blue Diamond could be used as a formative assessment. In one teacher's words, "Blue Diamond is really just a mini-summative." Another commented that Blue Diamond was "completely disjointed from what I am doing." In response, another teacher in the PLT countered, "if you are teaching the standard course of study, how can it not be connected?"

Supportive Conditions

The team felt supported by administration in the sense that they had a place and time to meet. Occasionally team members expressed disappointment that the administration had not supported team proposals for activities or approaches. Resources also provided a challenge to collaboration in the sense that teachers had to use different book selections to reach the same objectives because of limited numbers of copies of various books. This made it more difficult to create "common experiences" that would lend themselves to common formative assessments. While all members collaborated effectively to ensure that the same points were emphasized in the lessons, the fact that they were relying on different resources presented continued challenges.

SUMMARY OF HIGH SCHOOL ENGLISH I PLT

This PLT clearly collaborated and focused on student success. The dedication and commitment of these PLT members was evident in their discussions. Their willingness to make changes in order to find a way to make a difference was noted. Their frustration with results despite numerous efforts was obvious, but it did not stop them.

One challenge to planning lessons and developing formative assessments was evidenced by the lack of resources in terms of the same books being used to teach various objectives. PLT members then had to focus on the points of the lesson and use several sources to achieve the end result.

A key next step for this group's development seems to be becoming comfortable with and incorporating more formative data into their work in the classroom and in the PLT. The group did not appear to be as familiar with how to use the tools available as would be optimal. Training on applicable data and more approaches to addressing those data would be of great assistance to this team.

APPENDIX B

PLC/PLT Research Summary (DuFour et al., 2007)

Definition of PLC:

Educators committed to working collaboratively in ongoing processes of collective inquiry and action research in order to achieve better results for the students they serve. PLCs operate under the assumption that the key to improved learning for students is continuous, job-embedded learning for educators.

Characteristics of PLCs:

1. **BIG IDEA # 1: A focus on learning.**

- Willingness to examine <u>all</u> practices in light of their impact on learning.
- Clarify what each student is expected to learn (set "super clear" objectives).
- Monitor each student's learning on a timely basis through the use of frequent, formative common assessments.
- Create systems to ensure students receive additional time and support if they **are not** learning.
- Create systems to ensure students receive additional time and support if they **are** learning.

Note: When students don't learn, the educators' response must be:

- Timely (*prompt intervention* versus *sluggish remediation*).
- Directive (intervention must be *mandatory* instead of *invitational*).
- Systematic (intervention should be *based on a school-wide plan* instead of at the *discretion of individual teachers*).

2. **BIG IDEA # 2: A collaborative culture.**

- *Collaboration* is defined as: A systematic process in which we work together, interdependently, to analyze and impact professional practice in order to improve our individual and collective results.
- Team collaboration should lead to changes in classroom practice.
- Sometimes collaboration focuses on the wrong things. In a toxic/negative climate, collaboration gives people time to complain and "bellyache" collectively. In this case, collaboration can only make things worse.
- Proper collaboration should be focused on these four things:
  - ‣ What is it we expect them to learn?
  - ‣ How will we respond when they have learned it?
  - ‣ How will we respond when they don't learn?
  - ‣ How will we respond when they already know it?

Note: The following are keys to effective teams:

- A focus on learning embedded in routine practices.
- Time for collaboration built in the school day and school calendar.
- Focus on the key questions (listed above).
- Products of collaboration are made explicit.
- Team norms guide collaboration.

3. **BIG IDEA # 3: Focus on results.**

- Effectiveness must be assessed on the basis of *results* rather than *intentions*.
- Individuals, teams, and schools seek relevant data and information and use that information to promote continuous improvement.
- Teams must pursue specific and measurable performance goals.
- Team goals must be:
  ‣ Strategic and Specific
  ‣ Measureable
  ‣ Attainable
  ‣ Results-Oriented
  ‣ Time-Bound
- Schools typically suffer from the DRIP syndrome (Data Rich, Information Poor). *Data* must be turned into *information* that teachers can use.
- Common formative assessments are essential.

Notes on Common Formative Assessments:

- These are the key to improved student learning.
- Formative assessments are the catalyst for school improvement.
- They must be implemented for the following reasons:
  ‣ Efficiency – by sharing the load, teachers save time.
  ‣ Fairness – promotes common goals, similar pacing, and consistent standards for assessing student proficiency.
  ‣ Effective monitoring – provides timely evidence of whether the established curriculum is being taught and learned.
  ‣ Informs individual teacher practice – provides teachers with a basis of comparison regarding the achievement of their students so they can see the strengths and weaknesses of their teaching.
  ‣ Team capacity – collaborative teacher teams are able to identify and address problem areas in their program.
  ‣ Collective response – helps teams and the school to create timely, systematic interventions for students.

PLT OBSERVATION REPORT

School: _____

Level: _____

Date: _____

Observer: _____

PLT Name / Composition:

_____

Agenda Used (Y/N):

If yes, describe briefly:

_____

1. In what ways did the PLT focus on learning?

2. In what ways did the PLT demonstrate that their culture was collaborative?

3. In what ways did the PLT focus on results?

4. What did you find particularly interesting or surprising?

5. Reflections:

WAKE COUNTY PUBLIC SCHOOL SYSTEM (WCPSS)
PROFESSIONAL LEARNING TEAMS (PLTs):
2009-10 SCHOOL-BASED POLICY IMPLEMENTATION STUDY

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