



E&R Report No. 09.06

December 2009

## EFFECTIVE TEACHING PRACTICES IN ENGLISH I

Authors: Glenda Haynie Ph.D., *WCPSS Evaluation & Research Department*  
 Sherri Phillips Merritt Ph.D., *WCPSS Curriculum & Instruction Department*  
 Kim Bowen Ph.D., *WCPSS Curriculum & Instruction Department*

### ABSTRACT

*This study analyzed the instructional practices of the most effective English I teachers identified by a multiple regression model. Using both quantitative and qualitative analysis of test data, surveys, observations, and focus-group interviews, the study found that the goal of the most effective teachers was effective communication skills for all students. These teachers focused on building capacity in students by addressing transition into high school and success across all curricular areas. Their classrooms were well-managed and activity-based, using at least the middle level thinking skills of application and analysis. Most effective teachers used Marzano research-based strategies, particularly reinforcing effort and providing recognition, nonlinguistic representation, and cooperative learning. These results can be used to motivate teacher and school improvement efforts.*

### INTRODUCTION

Reading is a prerequisite for all high school courses. Yet of the 10 North Carolina high school courses tested in 2008-09 with a state-required End-of-Course test (EOC), English I generally was the only test that targeted reading comprehension directly. Even so, English I teachers do not view themselves as reading teachers. Reading at an eighth grade level is a prerequisite for English I as well as the other high school courses. English I teachers see themselves as teachers who teach students communication skills as prescribed for them in the North Carolina Standard Course of Study (NCSCS). The introductory paragraph of the NCSCS for English I states, “students also engage in meaningful communication.” To produce meaning, students read in a variety of contexts, practicing oral and written language in new situations across expressive, informational, argumentative, critical and literary contexts. Both comprehension and critical analysis are emphasized.

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The authors would like to acknowledge the support and intellectual contributions from David Holdzkom and Bradley McMillen.

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Students are also expected to apply conventions of grammar and language in all their oral and written work (North Carolina Department of Public Instruction [NCDPI], 2004).

The English I EOC is a multiple choice test divided into two parts. The first part, composition, has four student draft papers written in either the expressive, argumentative, informational, or critical style. There are 28 questions that address the conventions of grammar and language usage. The second part of the test has seven literary selections and 52 questions. The selections include fiction, nonfiction, and poetry. The questions test comprehension as well as understanding of literary genre, concepts, elements, and terms (NCDPI, 2006). In order to have a valid measure of reading comprehension, the selections that students read on the EOC were not read before in class. Students may read and study *To Kill a Mockingbird*, but there will be no EOC questions about this book, unlike Civics and Economics where students read and study the *U.S. Constitution* and are tested on the *U.S. Constitution*.

North Carolina requires that all students pass the EOC tests in Algebra I, Biology, Civics and Economics, English I, and U.S. History in order to graduate. Of all these courses, English I is the only one that is directly preparing students for success in **all** other high school courses, required or elective, since all courses have reading and writing components. Lack of grade level reading skills likely impacts performance on all the other EOC tests that students take.

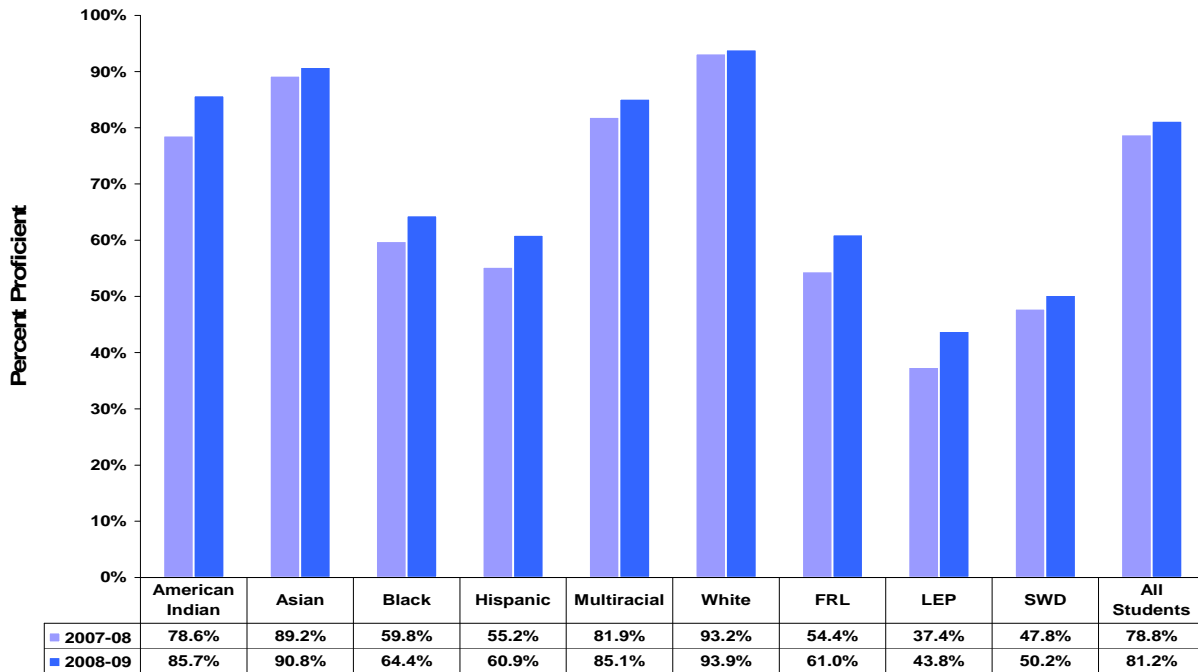
### **IMPORTANCE OF STUDYING TEACHER PRACTICES IN ENGLISH I**

In 2008-09, 81.2% of the English I students in Wake County Public Schools (WCPSS) were proficient on the North Carolina EOC English I exam. This was a slight increase from 78.8% in 2007-08. The proficiency rate for White students was 93.9%, but only 64.4% for Black/African American students and 60.9% for Hispanic/Latino students. The lowest rates were with student groups that historically perform below the level of their peers on state tests: free or reduced-price lunch (FRL), 61.0%; limited English proficient (LEP), 43.8%; students with disabilities (SWD), 50.2%. Note that the American Indian, Black/African American, Hispanic/Latino, FRL, and LEP subgroups all saw improvements of at least 4.6 percentage points from 2007-08 to 2008-09 (Figure 1).

Achievement gaps decreased from 2007-08 to 2008-09 yet remain large. The achievement gap between White students and Black/African American students went from 33.4 percentage points to 29.5 percentage points, and between White students and Hispanic/Latino students from 38.0 percentage points to 33.0 percentage points. In 2008-09, there was also a gender gap in English I of 6.5 percentage points (Figure 2).

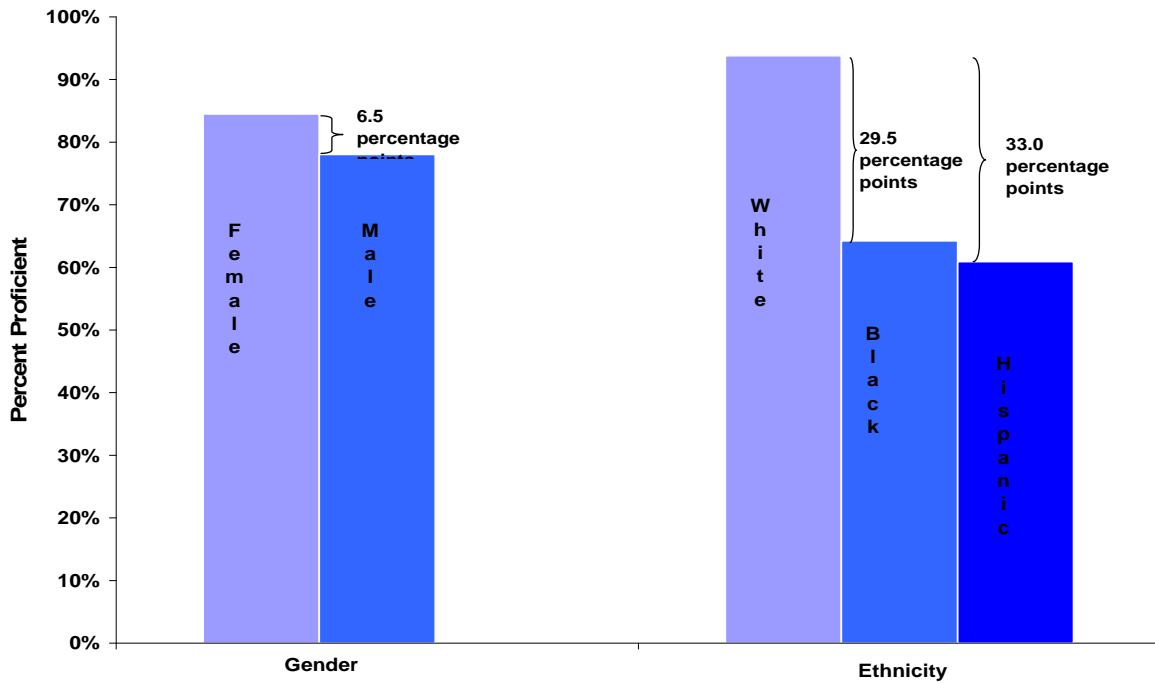
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**Figure 1**  
**English I Proficiency by Racial or Academic Risk Subgroups**



Data Source: <http://disag.ncpublicschools.org/2009/> retrieved 10/22/2009

**Figure 2**  
**2008-09 English I Performance Gaps**



Data Source: <http://disag.ncpublicschools.org/2009/> retrieved 10/22/2009

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Students who entered a North Carolina high school in 2006-07 or later must not only earn English I credit, but must also pass the EOC exam to graduate (NCDPI, 2007). Several studies of student gains on standardized tests from one year to another have found the student's assigned teacher to be the most influential factor (Rivkin, Hanushek, & Kain, 2001; Sanders & Horn, 1994; Sanders & Rivers, 1996; Wright, Horn, & Sanders, 1997). Thus, identifying and sharing the most effective instructional practices of teachers is a critical first step in district school improvement processes aimed at supporting students.

It is of increasing importance that English I teachers implement instructional practices that ensure success for all students, because of the importance of passing this course and also the state EOC exam. Improved reading skills also impact a student's performance on all other required EOC results (Algebra I, Biology, Civics and Economics, and U.S. History). This impact was found in the research of Silver, Strong, Perini, and Tuculescu (2004). They analyzed assessment tests from 38 states across various content areas and concluded that all the tests regardless of content area measured the same set of core skills which they named the "Hidden Skills of Academic Literacy." The skills were organized into four areas with the first area identified as "Reading and Study Skills". This area was said to have three parts:

- collect and organize ideas through note-making,
- make sense of abstract vocabulary, and
- read and interpret visual displays of information.

A WCPSS analysis of the 2009 graduation cohort (students who began 9th grade in 2005-06) found that 25% of the dropouts and 27% of the students who were enrolled three years later in August 2008, but did not have enough credits to graduate on-time, had not passed the English I EOC. On the other hand, only four percent of the students scheduled to graduate on-time by Spring 2009 had not passed the English I EOC by August 2008 (Gilleland & McMillen, 2009).

### **ENGAGING STUDENTS IN MEANINGFUL COMMUNICATION**

Both research-based knowledge and professional standards form the basis for quality instruction in English. Langer, Close, Angelis, & Preller (2000) reported research conducted in 44 English classrooms in 25 schools in 4 states that identified six practices used in the top-performing schools. These practices are presented as guidelines for teaching students to read and write well. For all six guidelines, the teacher is the key to facilitating each practice. Three are stated as teacher behaviors:

- integrating test preparation into instruction,
- making connections across instruction, curriculum, and life, and
- fostering cognitive collaboration.

Three are stated as student goals:

- learning skills and knowledge in multiple lesson types,
- learning strategies for doing the work, and
- being generative thinkers.

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In 1996, the National Council of Teachers of English in collaboration with the International Reading Association published *Standards for the English Language Arts* (International Reading Association [IRA] and the National Council of Teachers of English [NCTE], 1996). There are 12 standards in that document. In the introduction to the document, the purpose is stated:

Our shared purpose is to ensure that all students are knowledgeable and proficient users of language so that they may succeed in school, participate in our democracy as informed citizens, find challenging and rewarding work, appreciate and contribute to our culture, and pursue their own goals and interests as independent learners throughout their lives. (IRA & NCTE, 1996, p. v)

Although there are 12 standards, the reader is challenged to view them as an integrated whole. A “wide range” of experience in reading and writing is a common thread throughout the standards.

The National Board for Professional Teaching Standards (NBPTS, 2003) also has standards for advancing student learning in high school English:

- Integrated Instruction
- Reading
- Writing
- Speaking and Listening
- Viewing and Producing Texts
- Language Study
- Assessment

Here again, integration of and exposure to varied forms of written and spoken communication are of utmost importance.

## **PURPOSE OF STUDY**

Given the importance of English I to high school student success, this research study had two main objectives:

- Study English I using a WCPSS Value-Added Instructional Improvement Analysis Model.
  - ▶ Collect WCPSS-specific data that will help teachers, school, and district leadership understand the current instructional practices in English I.
  - ▶ Identify and share best teaching strategies in English I that are linked to high student achievement.
- Contribute to a series of studies that identify targets for overall systemic improvement.
  - ▶ Identify the roles of teachers, academic departments, principals, schools, and central services’ administrators in the school improvement process.
  - ▶ Identify the practices of effective instruction.

Success in this study was operationalized by using a multiple regression analysis of the state English I EOC test scores. This analysis generated for each student, teacher, and school a

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measure of whether their test scores showed a level of performance that was either higher, lower, or about what was expected, compared to other WCPSS students, teachers, or schools. A previous study of biology teaching and learning demonstrated that teachers and schools that consistently produce more achievement in students regardless of a student's initial skill level can be identified (Haynie, 2006). This study brings value-added meaning to English I EOC test performance. The classroom practices of the most successful teachers can be documented to give hope to teachers struggling with low performers and to challenge teachers of high performers to even higher academic goals. The school-wide practices of successful schools, identified in this study, can also serve as models for school improvement efforts. Teacher performance evaluation was not a goal of this study, unlike most current value-added models (Braun, 2005; Olson, 2005; Olson, 2004a, 2004b; Sanders, 1998; Tucker & Stronge, 2005). This study demonstrates the use of value-added research for teacher and school improvement rather than for purposes of teacher evaluation.

### WCPSS CONTEXT

English I is a North Carolina high school graduation requirement. Starting with the entering freshman class of 2006-07, students are also required to score proficient on the state English I EOC exam in order to earn a diploma. The course is currently offered at two levels in WCPSS: academic (for students of average ability), and honors. In addition, nine WCPSS high schools have Paideia classes. The Paideia program in WCPSS is an interdisciplinary, heterogeneously grouped approach drawn from *The Paideia Proposal* (Adler, 1998), which encourages students to think across subject areas and curriculum boundaries. Paideia is a two-credit course that is team-taught and covers the English and social studies requirements (in 9<sup>th</sup> grade, Paideia covers English I and World History). Teachers emphasize critical and analytical thinking skills and engage students in weekly seminars and supervised practice referred to as coaching. Seven of the nine schools teach academic and honors Paideia classes in one combined setting as described above, while two schools offer Paideia only as an honors class.

### ENGLISH I AND THE STATE ACCOUNTABILITY MODEL

In North Carolina, EOC exams are administered in eight high school courses, including English I. Each exam is a standardized multiple-choice test written with input from teachers across the state. Teachers participate in test development in a variety of ways, from writing the curriculum on which EOC tests are based, to writing and reviewing test items. Each student who takes an EOC test is assigned a scale score based on the number of items correct and the difficulty of items. The scale scores are then converted to one of four levels of performance. Levels III and IV are associated with adequate or higher mastery of course content, and are considered proficient (NCDPI, 2009).

Teachers receive rosters of students' scale scores, level scores, and a 100-point scale score that is averaged as 25% of the final class grade. An average scale score for the class is also reported on each roster. The percentages of students passing each EOC in a school are reported publicly. Teachers judge their own success using these percentages. The scores can also be disaggregated into many subgroups (e.g., students with disabilities [SWD], limited English proficient students [LEP], academically gifted students [AG], etc.).

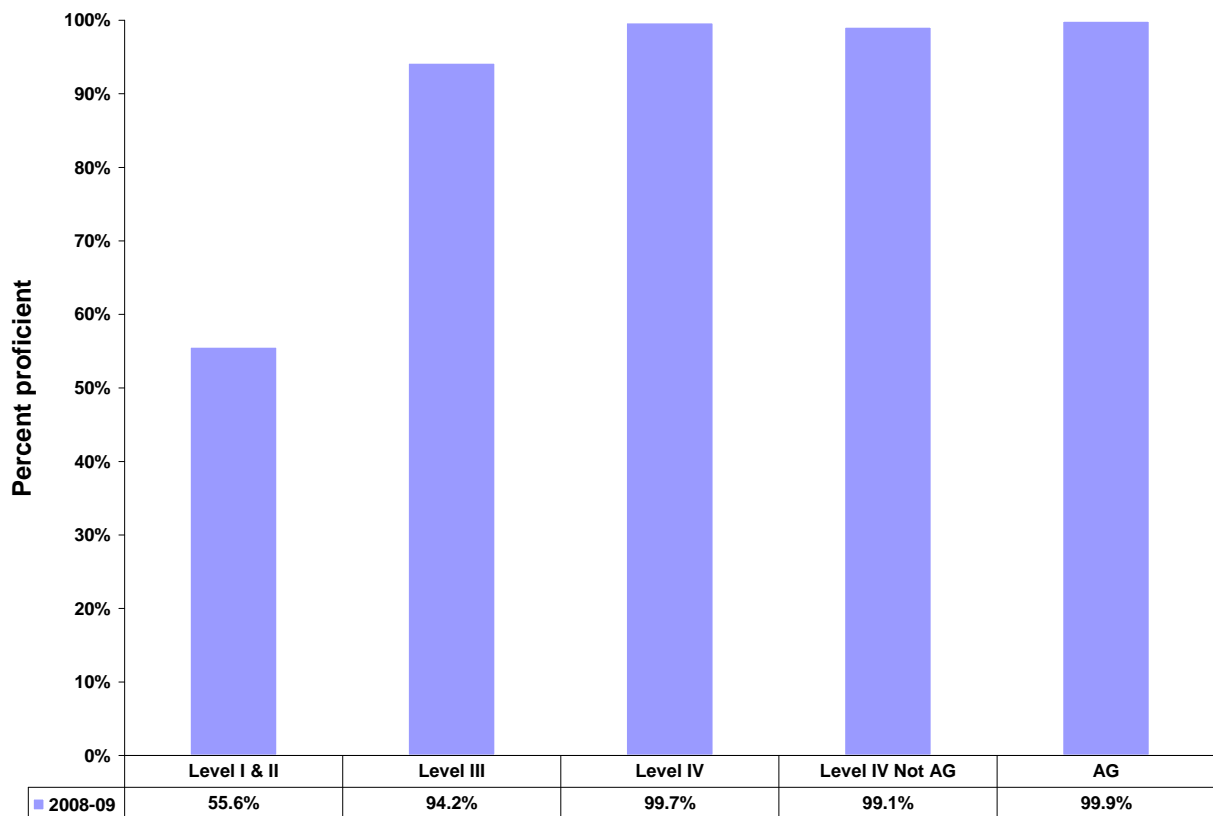
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For high schools, the EOC tests administered each year are a large component of the ABCs of Public Education, the state's accountability program. The program has two standards of achievement: the absolute percentage of tests at or above grade-level proficiency, and the attainment of "expected" growth. The basic assumption of the growth part of the model is that a student should be expected to do at least as well, on each EOC test as prior performance on End-of-Grade (EOG) and EOC tests would suggest, compared to all other students who took the test in the standard-setting year. The standard-setting year is typically the first year that a test becomes operational. Each student who is tested and has previous test results is assigned an "academic change" value. A positive academic change indicates sufficient academic progress, while a negative value indicates insufficient academic progress. The average of all students' academic change values, across all EOCs, is calculated by the state's accountability program. If the average is zero or higher, the school makes "expected growth." Teachers and schools with academically weaker students can still make expected growth regardless of the level performance of students. Teachers with high-achieving students do not always produce expected growth in their students. The expected growth measure is considered by most teachers to be a fairer measure of success than student proficiency alone, because it takes into account the skill set that students bring to the course (NCDPI, 2009).

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As shown in Figure 1 earlier, the percentage of students proficient was 81.2% overall, ranging from 43.8% to 93.9% for ethnic/racial and academic-risk subgroups. The performance of students by their incoming skill level was also examined. In Figure 3, students are divided into subgroups by the level they scored on the eighth grade reading EOG exam and also if they were identified as academically gifted (AG). Almost one hundred percent of Level IV and AG students scored proficient on the 2008-09 English I EOC as would be expected. It is encouraging that almost 56% of students who were not proficient in Grade 8 (Level I or II on the eighth grade reading EOG exam) nonetheless scored at a proficient Level III or IV on the English I EOC (Figure 3).

**Figure 3**  
**2008-09 English I Proficiency by Academic Subgroup**



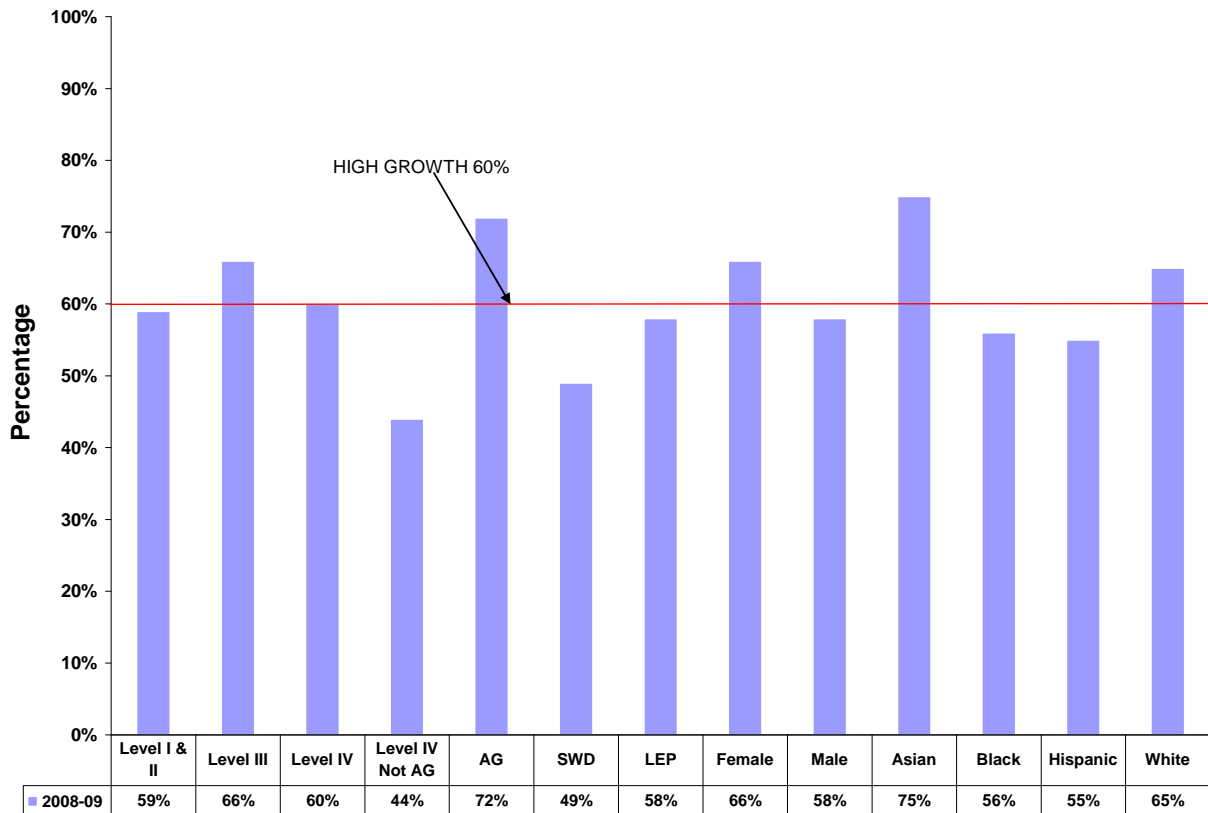
Data Source: WCPSS high school ABCs 2008-09 Charts as of August 6, 2009

Interpretation Example: 55.6% of the students who scored a Level I or II on at least one of their eighth grade EOG exams scored a Level III or IV on their English I EOC exam.

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Examining the percentage of students that made their growth target in English I gave a different perspective on student performance. If 60% of a school’s students reach or exceed their growth target, the school is designated as making “high” growth. The percentage of students making their growth target was lower in every subgroup than the percentage of students making proficiency. Of particular concern were the students who were not AG, yet had scored at Level IV on the eighth grade reading EOG. In 2008-09, only 44% of those students met their growth target (Figure 4).

**Figure 4**  
**Percentage of English I Students Making their Growth Targets by Subgroup**  
**2008-09**



Data Source: WCPSS high school ABCs 2008-09 Charts as of August 6, 2009

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In 2008-09, the percentage of proficient students at 23 WCPSS high schools<sup>1</sup> ranged from 52.5% to 97.1%, with seven schools below the state average of 74.3% (Table 1). The average scale scores across schools ranged from 146.8 to 158.3, with seven schools below the state average of 151.4. Twenty-one schools made expected growth, and 19 of these schools also made high growth. This leaves two schools that did not make expected growth in English I. In Table 1, the schools are labeled A to W, with A having the highest percentage of students scoring at Level III or IV and W having the lowest percentage. Also note that the school P has a higher percentage proficient than the state but a lower average scale score. Schools M, N, and O have higher average scale scores than the district, but lower percentages proficient.

**Table 1**  
**2008-09 English I Outcomes at WCPSS High Schools**

School	% at Level III or IV	Average Scale Score	Met Expected Growth	Met High Growth
A	97.1%	158.2	YES	YES
B	95.2%	158.3	YES	YES
C	93.1%	157.5	YES	YES
D	89.1%	156.7	YES	YES
E	87.7%	154.5	YES	YES
F	85.3%	154.6	YES	YES
G	83.2%	153.6	YES	YES
H	82.9%	154.5	YES	YES
I	82.5%	154.4	YES	YES
J	82.2%	153.4	YES	YES
K	82.1%	153.9	YES	YES
L	82.1%	154.0	YES	YES
WCPSS	81.2%	153.7	YES	YES
M	81.0%	154.0	YES	YES
N	81.0%	155.5	YES	YES
O	80.4%	153.9	YES	YES
P	74.8%	150.8	YES	NO
STATE	74.3%	151.4	NA	NA
Q	74.2%	151.4	YES	YES
R	73.4%	151.0	YES	YES
S	70.3%	150.1	YES	YES
T	69.7%	149.7	YES	YES
U	67.3%	149.4	NO	NO
V	58.5%	147.4	NO	NO
W	52.5%	146.8	YES	NO

<sup>1</sup>Alternative schools are not included

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## RESIDUALS AND EFFECTIVENESS INDEX

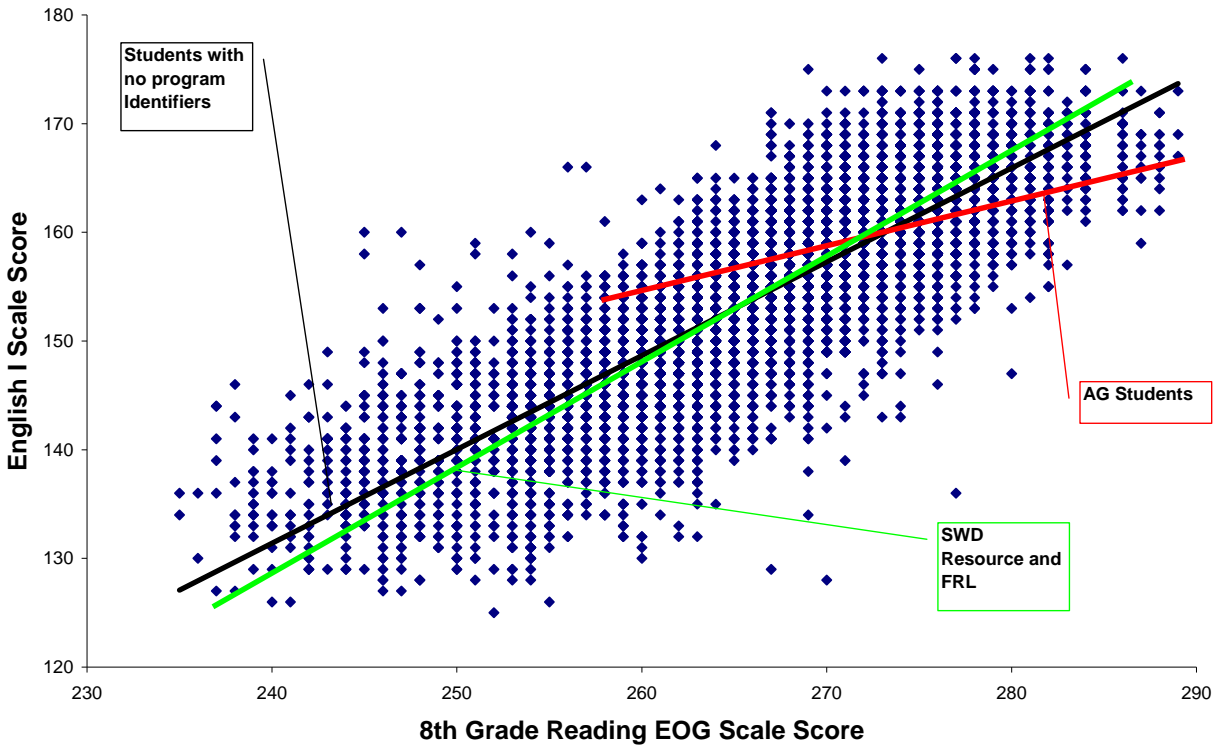
The state provides to every school district in the state test analysis software that can be used to run school-level results and results for subgroups of students within the school. The state also posts these disaggregated test results on a Web site. These analyses, however, are limited to average scale scores and percentages of students tested who attain proficiency. Although these statistics provide useful information to teachers and principals, WCPSS evaluators believe that other analyses of student achievement data can present a more useful picture of the success of teachers and students. Although these state-provided measures serve as a valid way of reporting how teachers and schools are succeeding, the WCPSS Evaluation and Research department has developed more fine-grained methods to determine which schools and teachers are getting the most growth with students *in comparison to other WCPSS schools*. Identifying the schools and teachers that are producing the highest performance in students at varying levels of preparation is necessary in order to be able to share best practices within the district and motivate school improvement efforts.

Since the early 1990s, WCPSS has used a multiple regression analysis to generate an “effectiveness index” for each school, which ranks the schools within WCPSS. This regression analysis creates a prediction model by using the current year’s test scores as the outcome and previous state test scores as the predictors. The analysis also takes into account each student’s special program status (level of service for special education, e.g. self-contained), free or reduced-price lunch (FRL) status, and AG status as well as the percentage of FRL students in the school. A residual score is calculated for each WCPSS student who took the test and had previous test score predictors. The residual score for a student is the difference between the student’s actual score and the score that the regression analysis model would have predicted, given the student’s previous test scores and program characteristics. These residuals give a measure of how students performed compared to other similar students in WCPSS, that is, students with similar previous test scores and program identifiers.

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As an example, Figure 5 gives a visual of the regression analysis for English I with three of the many possible prediction lines. It shows that the predictions are both dependent on previous EOG and/or EOC scores and also the students' program characteristics, such as AG, or disability status and FRL status. The middle black line could represent students with no identifiers.

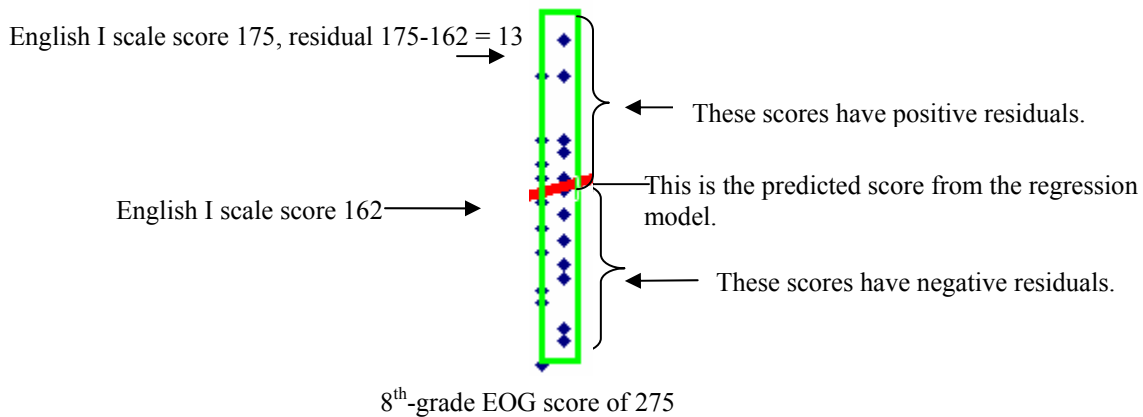
**Figure 5**  
**English I Regression Scatter Plot**



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Figure 6 shows one vertical slice of the regression model for students whose prediction line is the AG line of Figure 5 and whose 8<sup>th</sup>-grade EOG score was 275. The line at the center is the predicted score generated by the model for these students. A residual is the difference between the actual score and the predicted score. Scores above have positive residuals and scores below have negative residuals.

**Figure 6**  
**Student Residuals for Academically Gifted Students**



For each test given, the residuals are averaged across all students in the school, and a standardized z-score (effectiveness index) is generated for each school by subject. A z-score is the number of standard deviations that the school’s residual average is from the average (mean) of all the schools. If the z-score is greater than 1, then the school knows that its students in that course have scored significantly higher (among the top 16%) than the other students in the district who have similar previous test scores and program characteristics. Similarly, if the effectiveness index is less than -1, then the students have scores much lower (among the bottom 16%) than the students in other schools. Values between -1 and +1 are within one standard deviation of the WCPSS average and are considered “typical” or expected.

Table 2 is an example of a WCPSS high school effectiveness z-score report. This school was among the top schools in the district for effectiveness in Algebra I, Algebra II, Geometry, Biology, and Physical Science; yet the effectiveness scores were among the bottom in Civics/Economics and U.S. History. The effectiveness scores in English I, Chemistry, and Physics were about the same as the average scores in the district.

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**Table 2**  
**Effectiveness Indices for a WCPSS High School**

End of Course	Z Score
Algebra 1	1.02
Biology	1.82
Civics	-1.00
English 1	0.32
US History	-1.44
Algebra 2	1.26
Chemistry	-0.25
Geometry	1.61
Physical Science	1.37
Physics	-0.40

WCPSS principals receive rosters of student residuals by teacher, course, and section. In these rosters, student residuals above one standard deviation are coded in green, and student residuals below one standard deviation are coded in red. The standard deviation in scale-score points of these residual scores is displayed at the bottom of the roster, along with the average residual for the section.

Table 3 is a sample roster for a 2008-09 English I class of 19 students. For each student, the predictor scores are shown. The predictors for the English I EOC are the 8th-grade reading and mathematics scores. The roster then displays the English I EOC scale score and the residual score for each student. These residuals are averaged and an average residual score for the class is provided. The average residual for this class was 0.09. The principal and teacher can then determine how successful students were on the EOC as compared with other students with similar characteristics. Notice that Student 6, Student 12, and Student 16 have the same scale score on the English I EOC exam, but Student 6 has a negative residual while Student 12 and Student 16 have positive residuals with Student 16's residual higher than Student 12's. Student 16 has a lower scale score than Student 4 but a much higher residual. The residual shows a measure of performance as related to previous performance and other educational indicators, and gives a sense of the relative growth for each student. Students 1 and 2 have no residuals, as these students are missing previous test scores.

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**Table 3**  
**Sample High School English I EOC Residual Roster**

Name	8 <sup>th</sup> -Grade EOG Reading Scale Score	8 <sup>th</sup> -Grade EOG Math Scale Score	2009 EOC English 1 Scale Score	2009 English I Residual
Student 1	.	.	156	.
Student 2	.	.	151	.
Student 3	256	345	135	-5.87
Student 4	281	363	154	-5.60
Student 5	259	356	142	-5.08
Student 6	261	360	146	-3.11
Student 7	262	354	144	-2.54
Student 8	254	350	141	-1.98
Student 9	242	347	133	-1.22
Student 10	245	343	134	-0.30
Student 11	254	348	144	0.17
Student 12	258	347	146	0.28
Student 13	259	352	145	0.54
Student 14	265	345	150	2.37
Student 15	266	363	155	3.39
Student 16	258	346	146	3.51
Student 17	262	353	152	4.04
Student 18	259	357	155	6.35
Student 19	271	372	163	6.56

Note: Class Average = 0.09

Standard deviation = 4.61

Interpretation Example: Student 18 had an 8<sup>th</sup>-grade reading scale score of 259 and an 8<sup>th</sup>-grade math scale score of 357. Student 18's 2009 English I scale score was 155 and the student's residual was 6.35. This student scored among the top 16% of students with the same English I score, the same 8<sup>th</sup>-grade reading and math scores, and the same program indicators.

The student residual scores and the effectiveness indices give the district a comparison basis for schools and students. Until recently, residuals had not been averaged or standardized at the teacher level beyond the classroom roster. Prior to 2005-06, teachers were encouraged to study their rosters for trends in student performance, and some principals had compared teachers within their school, but no districtwide comparisons had been made. The study of biology teaching by E&R staff in 2004-05 was a first attempt at identifying the success of teachers, as indicated by average residuals, and then to identify the specific aspects of the practice of highly effective and relatively less effective teachers in order to isolate teachers' classroom practices that may be associated with high student achievement (Haynie, 2006). This study of English I outcomes and practices is the last in a planned series of studies that will target overall systematic improvement as well as individual subject improvement using the residual metric and recognizing that teaching is an essential unit of analysis.

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## METHOD

Haynie (2006) piloted a collaborative study between the WCPSS Curriculum and Instruction Department (C&I) and the E&R Department, with the goal of identifying best teaching practices in biology. Since the effectiveness indices and teacher residual averages both use residual values that are calculated using student test results, which are known to contain error, combining residuals over three consecutive years of data both reduced the error and removed inexperienced teachers and teachers who taught biology infrequently. This piloted model was deemed successful and therefore was used in this study as well. Specialists from C&I took the lead in interpreting classroom observations while a specialist from E&R took the lead in data collection and analysis. This is a mixed-method study with both a quantitative and a qualitative component.

## CONTEXT AND PARTICIPANTS

This research study took place in WCPSS, a large urban/suburban school district in North Carolina. The WCPSS student population is growing rapidly, with an enrollment of approximately 138,000 in 2008-09, the largest in North Carolina and 18<sup>th</sup> largest in the nation. There were 16 high schools that had administered English I EOC tests in 2004-05, 2005-06, and 2006-07. These schools were assigned random identification numbers to be used throughout this study. The numbering of schools in no way corresponds to the order in Table 1.

Table 4 shows the English I effectiveness indices for these 16 schools. Schools with an effectiveness index above 1 are coded as H for high and below -1 as L for low. Schools with effectiveness indices between -1 and 1 are coded M+ and M- for middle positive and middle negative. Note that School 9 has been consistently high and School 4 has been low middle or low for all five years.

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**Table 4**  
**School-Level WCPSS Effectiveness Indices**

School	2004-05	2005-06	2006-07*	2007-08*	2008-09*
1	H	M+	M+	M+	M+
2	M+	H	M+	H	H
3	L	L	M+	M+	M-
4	L	M-	L	M-	L
5	M-	M+	M+	M+	M+
6	M-	M-	M-	M+	M+
7	M+	H	M-	M+	M-
8	M+	M-	H	M+	M+
9	H	H	H	H	H
10	M-	M-	M-	M-	H
11	H	M+	M-	M-	M-
12	H	H	M+	M+	M-
13	L	M-	M-	M-	L
14	M+	M-	M+	M+	M+
15	M+	M-	M-	M-	M-
16	M+	M-	M-	M-	M+

- Note:
1. H = effectiveness index >1
  2. L = effectiveness index < -1
  3. M+ = effectiveness index between 0 and 1
  4. M- = effectiveness index between -1 and 0
- \* New version of EOC test

In 2007-08, there were 138 English I teachers in WCPSS. Forty-two teachers (30% of the 138 teachers) had taught English I in 2004-05, 2005-06, 2006-07 and were teaching in 2007-08, which made them eligible for this study. Thirty-one teachers returned surveys and became final subjects. For these 31 teachers, the average student residual was calculated by teacher across all classes for 2006-07, 2004-06 (2 years), and a combined 2004-07 (3 years). Teacher residual averages were sorted from highest to lowest for 2006-07 and compared to previous and combined averages. The comparison of these rankings to the earlier and combined averages confirmed the consistency of the new test rankings with the previous test rankings. Teachers with the seven highest three-year residual averages (top teachers) were labeled T1-T7 and teachers with the seven lowest averages (bottom teachers) were labeled B1-B7. The practice of these 14 teachers became the ultimate focus of this study along with school 4 and school 9 (Table 5).

Teacher residual averages ranged from -1.18 to 1.33. The total number (*n*) of English I students taught by each teacher in three years ranged from 120 to 359. Two top teachers (T2 and T7) taught at school 9 that was identified above as a consistently effective school. Teacher T3 and teacher B1 taught in the same school (6). There was one bottom teacher (B2) at school 4 that was identified above as a less effective school.

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**Table 5**  
**3-year Teacher Residual Averages**

Teacher	School	3-year residual average	3-year <i>n</i>
T1	S02	1.33	291
T2	S09	1.25	280
T3	S06	1.03	265
T4	S14	0.91	183
T5	S01	0.85	359
T6	S12	0.82	120
T7	S09	0.79	181
B7	S14	-0.02	242
B6	S10	-0.13	286
B5	S05	-0.34	226
B4	S03	-0.44	299
B3	S13	-0.46	341
B2	S04	-1.14	240
B1	S06	-1.18	240

## DATA COLLECTION AND ANALYSIS

This research study examined four specific research questions posed in “particularistic terms,” meaning that the researchers were interested in specific situations within this school district without necessarily generalizing in a global manner (Maxwell, 2005, p. 71). This study examined two particular subsets of WCPSS English I teachers. The two groups of English I teachers were selected based on purposeful sampling which in this case represented teachers at the highest and lowest end of the spectrum of the teacher residual averages for the school district. The goal of the research was to identify characteristics that distinguish one group from the other.

Five data sources were used in this study:

- EOG and EOC scores,
- teacher surveys,
- classroom observations,
- focus group interviews, and
- student surveys.

The four research questions are in Table 6 along with the data sources used to answer each question. In order to answer Research Questions 2-4, multiple data sources allowed for triangulation in order to reach more accurate conclusions (LeCompte & Preissle, 1993).

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**Table 6**  
**Data Sources Analyzed by Research Questions**

<b>Research Questions</b>	<b>EOG and EOC tests</b>	<b>Teacher Surveys</b>	<b>Classroom Observations</b>	<b>Focus Group Interviews</b>	<b>Student Surveys</b>
1. How do the quantitative data describe the most effective WCPSS English I teachers? <ul style="list-style-type: none"> <li>• Teacher preparation</li> <li>• Teacher experience</li> <li>• Student preparation</li> <li>• Student test outcomes</li> </ul>	x	x			
2. What beliefs do the most effective WCPSS English I teachers express about their students?		x		x	
3. What are the characteristics of the learners in most effective WCPSS English I classes? <ul style="list-style-type: none"> <li>• Level of classroom engagement</li> <li>• Level of student work</li> <li>• Student actions</li> </ul>			x  x x		x
4. How do the most effective WCPSS English I teachers instruct their students? <ul style="list-style-type: none"> <li>• Use of research-based techniques</li> <li>• Instructional practices</li> <li>• Planning for instruction</li> </ul>		x  x x	x  x	x  x x	  x

**EOG and EOC scores**

The eighth grade reading EOG scores were analyzed by teacher to provide a baseline measure of student prerequisite skills. The English I EOC scores were analyzed by teacher both as performance measures and also as residual measures that controlled for the incoming skill level of students.

**Teacher Surveys**

Selected survey questions were analyzed based on their ability to contribute answers to the study’s research questions. Teacher responses were compiled in a spreadsheet for analysis of patterns across respondents within and across the two groups. The questions selected for analysis dealt with what percentage of class time teachers reported using a particular instructional format, teacher comfort level with understanding the Standard Course of Study for

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English I; the degree to which teachers reported using research-based strategies identified by Marzano, Pickering, and Pollock (2001); teacher opinion about how specified subgroups had performed in their classes over the past four years, and teacher level of agreement about statements such as “My students work hard” and “My students have strong prerequisite skills”.

### **Classroom Observations**

Researchers conducted a total of 17 classroom observations, nine of them in the classrooms of the top seven teachers and eight of them in the classrooms of six bottom teachers (one bottom teacher [B6] was not observed). With the exception of three observations, all observations were completed “blind,” meaning that the observer did not know whether the teacher being observed was in the top group or the bottom group. The total amount of time spent observing was over 19 hours, with 10 hours in the classrooms of the top teachers and over nine hours in the classrooms of the bottom teachers. In all cases the observations were announced and/or occurred at a time selected by the participating teacher.

A protocol was developed and used for all classroom observations by the three researchers. The protocol contained a list of 13 actions based on research on effective teaching (Marzano, Pickering, and Pollock, 2001). Actions included items such as: identifying similarities and differences; nonlinguistic representation; and generating and testing hypothesis. In addition, researchers noted whether the action was being done by a teacher or a student. The protocol also listed 17 common instructional formats used in classrooms, such as small group work, in-class reading, and common formative assessment. Researchers estimated the percentage of the class period devoted to each.

The rest of the protocol was set up so that researchers would note the time and respond to a series of statements every ten minutes while taking detailed field notes on what was happening in the classroom. For each ten-minute section, researchers noted whether the task was teacher-led or student-led, whether the task was skills-driven or concept-driven, whether most students were on-task or off-task, whether or not the task was clearly related to the NCSCS, and notes on transitions.

In order to analyze the observations, researchers developed a spreadsheet that allowed them to descriptively code each observation. The depth of detail in the field notes section and the fact that researchers frequently noted the time within the notes (typically every two minutes or so) allowed for more in-depth analysis. For example, researchers found during data analysis that it was more informative to code by “episodes” rather than in ten minute increments. Using the work of Hillocks (1999), researchers began the analysis by identifying “episode markers” (shifts in classroom focus) so that complete episodes were coded together rather than being divided up by the arbitrary ten-minute marks. This allowed for greater cohesiveness within analysis.

Once episodes were identified, researchers conducted descriptive analysis using the criteria set out on the observation protocol. They then analyzed the use of research-based strategies, instructional practices used, and student actions. Again, because of the depth of detail in the field notes, researchers were able to add coding by “student actions” based on actions used in the Teachscape (2007) walkthrough protocol.

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## Focus-Group Interviews

Researchers conducted four focus group interviews with groups of English I teachers. The first focus group was held with four of the teachers in the top group, and the second focus group interview involved four teachers in the bottom group of teachers. The third focus group was with seven teachers from the high school (school 4) with the lowest effectiveness index, and the final focus group was with eight teachers at the high school (school 9) with the highest effectiveness index.

Each focus group interview followed the same protocol of eight questions posed by the same researcher, but follow-up questions based on teacher feedback and additional questions were added to elicit further insight. Each interview was audio taped, and two researchers took detailed notes during each focus group.

## Student Surveys

Students who took the English I EOC in 2007-08 completed a survey that included questions concerning their instructional experience. Survey questions related to the research questions of this study were analyzed and are included in the following results section.

# RESULTS

## RESEARCH QUESTION 1

### **How do the quantitative data describe the most effective WCPSS English I teachers?**

Teacher preparation and experience was quantified and comparisons made between the top and bottom teachers using the teacher surveys. Student EOG and EOC test scores were analyzed to determine level of student preparation for and performance in English I.

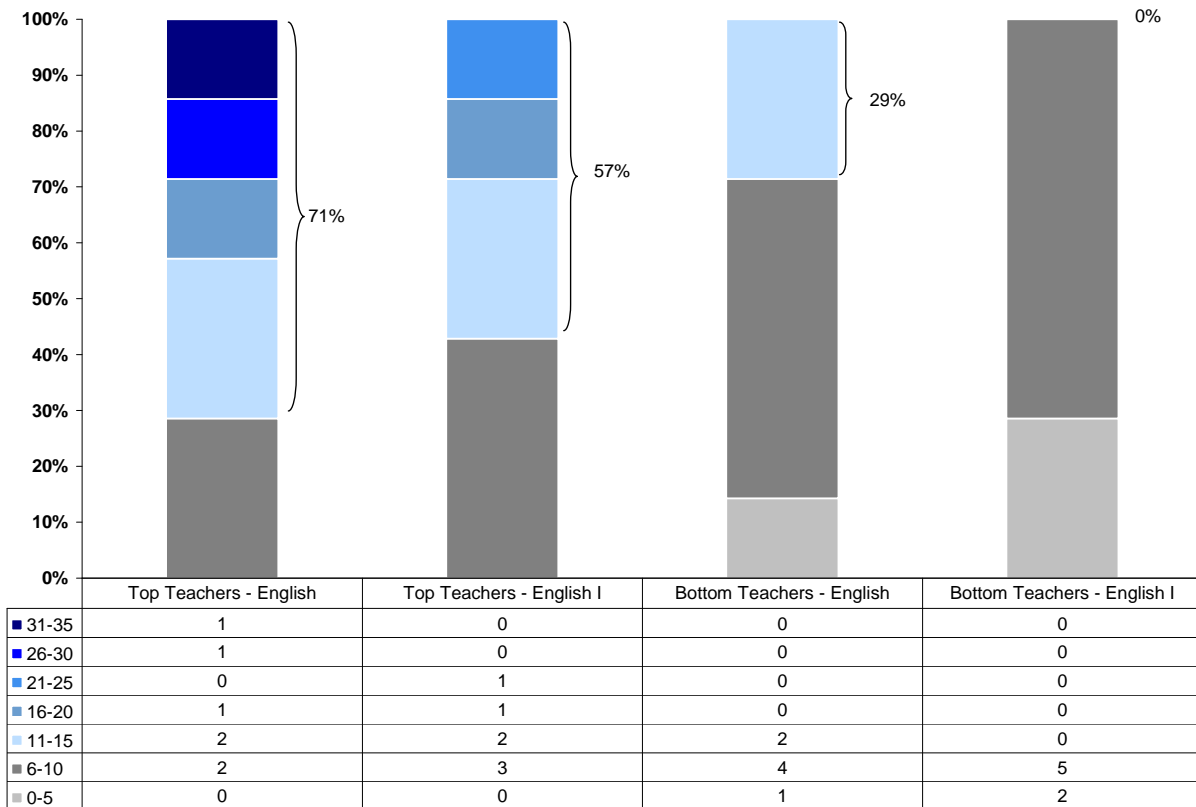
#### *Teacher Preparation and Experience*

All of the top teachers and six of the seven bottom teachers had bachelor's degrees in English or English Education. Two of the top and three of the bottom teachers held national board certification in English. There were more top teachers holding an advanced degree in English or English Education (four of seven top teachers compared to only one of seven bottom teachers).

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Top teachers as a group had more teaching experience both in English and specifically in English I than the bottom teachers. Top teachers had 7 to 33 years experience in English with 7 to 25 years of experience teaching English I. Fifty-seven percent of top teachers had more than ten years of experience in both English overall and English I. On the other hand, bottom teachers had 4 to 12 years experience in English and 4 to 10 years in English I. Only 29% had more than ten years experience in English and no bottom teachers had more than ten years experience in English I (Figure 7).

**Figure 7**  
**Years of Experience Teaching English and English I**



Note: Blue represents more than 10 years of experience  
Gray represents 10 years or less experience

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There was one notable difference in the type of English I class taught by the top teachers compared to the bottom teachers: Five of seven top teachers taught Paideia classes compared to only two bottom teachers. Also, all three top teachers with the highest residual averages taught Paideia classes that had a mixture of academic and honors students; while all three bottom teachers with the least effective residual averages taught academic and honors students in separate classes. Note that all but one teacher (T4) taught both academic and honors students (Table 7).

**Table 7**  
**English I Courses Taught by Study Teachers**

<b>Teacher</b>	<b>School</b>	<b>Courses in 2006-07</b>
T1	S02	Paideia (mixed academic and honors) and honors
T2	S09	Paideia (mixed academic and honors)
T3	S06	Paideia (mixed academic and honors)
T4	S14	honors
T5	S01	Paideia (honors), honors, and academic
T6	S12	honors and academic
T7	S09	Paideia (honors) and academic
B7	S14	honors and academic
B6	S10	academic and honors
B5	S05	Paideia (mixed academic and honors) and academic
B4	S03	Paideia (mixed academic and honors) and academic
B3	S13	honors and academic
B2	S04	honors and academic
B1	S06	honors and academic

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**STUDENT ACADEMIC ACHIEVEMENT**

The eighth grade reading EOG test provides a good measure of the incoming reading skill of English I students. The average 3-year scale score reading average for Black/African American students in top teacher classes ranged from 261.9 (T7) to 267.7 (T4) with an overall average of 264.7. In bottom teachers classes, the range was from 258.8 (B1) to 264.1 (B6) with an overall average of 261.0. For White students, the range in top teacher classes was 269.9 (T1) to 272.1(T2 & T6) with an overall average of 271.0. The scores of White students in bottom teacher classes ranged from 267.5 (B1) to 271.3 (B5) with an overall average of 269.3 (Table 8).

The incoming achievement gap in top teachers’ classes ranged from 3.4 scale score points (T4) to 9.9 points (T7). In bottom classes the gap ranged from 4.4 points (B3) to 10.5 points (B7). The overall gaps were 6.3 points for top teachers and 8.2 points for bottom teachers (Table 8).

**Table 8**  
**Students’ 8<sup>th</sup> Grade EOG Reading Performance by Ethnicity**

Teacher	School	Black 8th grade Reading EOG scale score average	Black 8th grade Reading EOG standard deviation	Black 8th grade n	White 8th grade Reading EOG scale score average	White 8th grade Reading EOG standard deviation	White 8th grade n	Black-White Gap in Scale Score Average
T1	S02	265.5	6.5	77	269.9	6.7	175	4.4
T2	S09	263.1	8.0	57	272.1	6.5	200	9.0
T3	S06	265.2	7.8	35	270.1	6.7	210	4.9
T4	S14	267.7	6.2	27	271.1	5.7	136	3.4
T5	S01	264.3	6.6	39	270.8	5.8	249	6.5
T6	S12	267.6	5.6	16	272.1	5.2	77	4.5
T7	S09	261.9	6.1	39	271.8	6.1	121	9.9
B7	S14	260.7	6.9	64	271.2	7.2	141	10.5
B6	S10	264.1	7.4	35	270.7	6.0	224	6.6
B5	S05	262.2	6.5	47	271.3	5.7	156	9.1
B4	S03	259.1	7.1	103	267.9	8.6	156	8.8
B3	S13	263.6	6.4	35	268.0	6.5	266	4.4
B2	S04	262.2	6.2	108	268.1	6.4	101	5.9
B1	S06	258.8	7.2	74	267.5	7.3	146	8.7

Top Teachers		264.7	6.8	290	271.0	6.2	1168	6.3
Bottom Teachers		261.0	6.8	466	269.3	6.7	1190	8.2

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There is a difference of about three scale score points between top male (269.2) and bottom male (266.1) student averages and between top female (269.7) and bottom female (266.9) student averages. The incoming gap between male and female students is very low at 0.5 and 0.8 scale score points (Table 9).

**Table 9**  
**Students' 8<sup>th</sup> Grade EOG Reading Performance by Gender**

Teacher	School	Male 8th grade Reading EOG scale score average	Male 8th grade Reading EOG standard deviation	Male 8th grade <i>n</i>	Female 8th grade Reading EOG scale score average	Female 8th grade Reading EOG standard deviation	Female 8th grade <i>n</i>	Male-Female Gap
T1	S02	268.2	7.0	139	268.3	6.8	152	0.1
T2	S09	269.7	8.3	110	269.9	7.5	171	0.2
T3	S06	269.2	7.2	129	269.3	6.9	136	0.1
T4	S14	271.4	6.0	74	270.2	5.7	109	-1.2
T5	S01	269.0	6.7	191	270.3	6.4	170	1.3
T6	S12	271.5	5.8	48	271.0	5.9	72	-0.5
T7	S09	267.9	8.0	90	269.5	6.9	91	1.6
B7	S14	267.3	9.8	129	267.4	8.2	114	0.1
B6	S10	268.8	7.0	145	270.1	6.4	142	1.3
B5	S05	268.1	7.1	114	269.3	7.8	113	1.2
B4	S03	263.4	9.8	168	264.3	9.8	132	0.9
B3	S13	266.6	7.3	192	267.6	6.9	148	1.0
B2	S04	264.1	7.2	126	264.8	7.5	114	0.7
B1	S06	264.3	7.8	116	264.5	8.6	126	0.2
Top Teachers		269.2	7.1	781	269.7	6.7	901	0.5
Bottom Teachers		266.1	8.0	990	266.9	7.8	889	0.8

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The lower incoming skill set of students taught by bottom teachers could be explained by the teacher assignments and less teaching experience of these teachers. The residual average controls for the 8th-grade scores and gives a comparison of teachers based on their students’ performance regardless of the academic preparation of students. But greater variability among students may complicate the teaching task and may call for more complex decision-making.

The performance on the English I EOC test shows larger differences between top and bottom teachers. The percentage of students scoring proficient at Level III or IV was 94% for top teachers compared to 79% for bottom teachers. The gap for bottom teachers between White and Black/African American students was twice the gap for top teachers (32% compared to 16%) (Table 10).

**Table 10**  
**Percentage of Students Scoring at Level III or IV on English I EOC**

Teacher	School	Black % prof	n	White % prof	n	All Students % prof	n	Black - White Gap
T1	S02	81.4%	86	97.0%	197	91.4%	326	15.6%
T2	S09	72.7%	66	98.3%	230	92.3%	325	25.5%
T3	S06	82.1%	39	96.1%	228	94.1%	287	14.0%
T4	S14	97.1%	34	98.7%	154	98.1%	209	1.6%
T5	S09	75.0%	52	97.1%	279	92.7%	409	22.1%
T6	S01	93.8%	16	97.4%	78	95.9%	123	3.7%
T7	S12	82.9%	41	99.3%	142	94.2%	206	16.4%
B7	S14	58.5%	82	97.0%	164	81.7%	289	38.4%
B6	S10	82.4%	51	96.3%	242	92.6%	324	13.9%
B5	S05	66.1%	59	95.8%	189	88.0%	274	29.7%
B4	S13	47.2%	123	84.7%	189	67.5%	366	37.5%
B3	S03	68.8%	48	90.5%	294	83.7%	392	21.7%
B2	S04	56.6%	129	85.7%	119	68.2%	286	29.1%
B1	S06	48.9%	92	78.5%	177	68.1%	295	29.6%
Top Teachers		81.1%	334	97.6%	1308	93.6%	1885	16.4%
Bottom Teachers		57.9%	584	90.2%	1374	78.5%	2226	32.4%

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The differences in performance were also observed in the gender calculations. Ninety-five percent of female students in top classes scored proficient compared to 82% in bottom classes. Ninety-two percent of male students scored proficient in top classes compared to 77% in bottom classes. The gender gaps were 3% for top teachers and 5% for bottom teachers (Table 11).

**Table 11**  
**Percentage of Students Scoring at Level III or IV on English I EOC by Gender**

Teacher	School	Male % prof	<i>n</i>	Female % prof	<i>n</i>	All Students % prof	<i>n</i>	Male - Female Gap
T1	S02	90.4%	156	92.4%	170	91.4%	326	2.0%
T2	S09	90.5%	137	93.5%	185	92.3%	322	3.0%
T3	S06	91.5%	141	97.2%	144	94.1%	285	5.7%
T4	S14	96.4%	83	99.2%	126	98.1%	209	2.8%
T5	S09	91.7%	217	94.2%	191	92.7%	408	2.5%
T6	S01	95.8%	48	96.0%	75	95.9%	123	0.2%
T7	S12	93.8%	96	95.2%	103	94.2%	199	1.4%
B7	S14	77.4%	146	87.1%	140	81.7%	286	9.7%
B6	S10	89.4%	160	96.3%	162	92.6%	322	6.9%
B5	S05	87.3%	142	90.0%	130	88.0%	272	2.7%
B4	S13	66.3%	199	70.2%	161	67.5%	360	3.9%
B3	S03	81.4%	226	87.8%	164	83.7%	390	6.4%
B2	S04	69.2%	146	69.1%	146	68.2%	292	-0.1%
B1	S06	65.6%	151	71.1%	142	68.1%	293	5.5%
Top Teachers		92.1%	878	95.1%	994	93.6%	1872	2.9%
Bottom Teachers		76.6%	1170	81.7%	1045	78.5%	2215	5.1%

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To further illustrate some differences at the individual teacher level, table 12 separates the Paideia classes of top teachers T1 and T3 into their honors and academic components in order to compare incoming scores and residual averages with the honors and academic classes of bottom teachers B1 and B2. T1 and B1 taught at the same school. For both honors and academic students, the top teachers have residuals averages that represent better performance for their English I students than the bottom teachers.

**Table 12**  
**Comparison of Paideia versus NonPaideia Classes**

<b>Honors</b>	<b><i>n</i></b>	<b>8th grade reading average scale score</b>	<b>8th grade reading average standard deviation</b>	<b>Residual average</b>	<b>Standard deviation of residual average</b>
T1 (Paideia)	35	272.3	5.54	1.68	3.87
T1 (Honors)	25	269.4	5.82	1.37	4.11
T3 (Paideia)	39	272.8	6.05	3.2	4.37
B2	22	270.5	5.17	-1.21	4.12
B1	33	271.7	5.36	-0.59	4.95

<b>Academic</b>	<b><i>n</i></b>	<b>8th grade reading average scale score</b>	<b>8th grade reading average standard deviation</b>	<b>Residual average</b>	<b>Standard deviation of residual average</b>
T1 (Paideia)	38	264.9	5.77	2.45	4.77
T3 (Paideia)	24	267.4	5.66	2.49	4.95
B2	37	262.2	5.58	-1.95	4.08
B1	53	263.8	6.32	-2.35	4.68

The English I EOC has items that test writing conventions and grammar, but all these questions are multiple choice. In 10th grade, students across North Carolina are given a test of writing in which they produce a writing sample. A chi-squared analysis of the writing test results of students from the top teachers' classes in English I compared to the students from the bottom teachers' classes found a significant difference ( $p < .01$ ) in the distribution of student scores. Of the students who scored at Level III or IV (proficient) on their eighth grade reading EOG test, only 7% of top teachers' students scored non-proficient (Level I or II) compared to 18% of the bottom teachers' students.

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Table 13 shows the teacher residual averages disaggregated by ethnicity and gender. Overall the gender gap is larger than the racial gap. Despite the gaps, top teacher residual averages are higher than bottom teacher residual averages in all subgroups studied.

**Table 13**  
**3-Year Residual Averages by Ethnicity and Gender**

Teacher	School	Black 3-yr residual average	3-yr n	White 3-yr residual average	3-yr n	Black-White Residual Gap	Male 3-yr residual average	3-yr n	Female 3-yr residual average	3-yr n	Male - Female Residual Gap
T1	S02	1.39	77	1.42	175	0.03	0.37	139	2.2	152	1.83
T2	S09	0.72	57	1.46	200	0.74	0.28	110	1.88	170	1.6
T3	S06	0.56	35	1.2	210	0.64	0.49	129	1.54	136	1.05
T4	S14	0.35	27	1.16	136	0.81	0.28	74	1.34	109	1.06
T5	S01	0.44	39	1.11	249	0.67	0.47	190	1.28	169	0.81
T6	S12	-0.51	16	0.94	77	1.45	0.22	48	1.22	72	1
T7	S09	0.61	39	0.92	121	0.31	0.26	90	1.32	91	1.06
B7	S14	-1.55	64	0.5	141	2.05	-0.77	128	0.83	114	1.6
B6	S10	-0.8	35	-0.02	224	0.78	-0.47	145	0.22	141	0.69
B5	S05	-0.68	47	-0.17	156	0.51	-0.85	114	0.18	112	1.03
B4	S03	-0.8	103	0.02	156	0.82	-0.99	167	0.26	132	1.25
B3	S13	-0.47	35	-0.32	266	0.15	-1.14	193	0.41	148	1.55
B2	S04	-1.14	108	-1.33	102	-0.19	-1.37	124	-0.74	115	0.63
B1	S06	-1.07	74	-1.38	146	-0.31	-1.5	115	-0.88	125	0.62
Top Teachers		0.72	290	1.21	1168	0.48	0.37	780	1.59	899	1.22
Bottom Teachers		-0.99	466	-0.32	1191	0.67	-1.01	986	0.05	887	1.06

**RESEARCH QUESTION 2**

**What beliefs do the most effective WCPSS English I teachers express about their students?**

Teacher beliefs were explored through the teacher survey and focus group interviews. Teachers in both groups shared some beliefs, with the overall attitude toward students of both groups being less than positive. However, on the teacher survey all teachers (top and bottom) stated that they felt successful with their English I classes over the previous four years. More importantly, teachers in the two groups expressed different ideas about how to act on their beliefs.

The teacher survey contained Likert scale statements that measured teachers’ attitudes toward students. There were six statements of student behavior:

- My students work hard.
- My students do their homework.
- My students seek extra help.
- My students set high standards for success.
- My students have strong prerequisite skills.
- My students seek to understand the concepts of English I.

Teachers were asked to agree or disagree with each statement. After converting the responses to a scale from one for “strongly disagree” to four for “strongly agree”, only two top teachers (T5 and T6) and one bottom teacher (B7) had overall averages of 3.0 or better, thus indicating an overall positive attitude. Four teachers, two top (T1 and T3) and two bottom (B2 and B3) had

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means of 2.0 since they disagreed with all six statements. The overall group means for the top and bottom teachers were 2.5 and 2.4 (Table 14).

**Table 14**  
**Mean Responses to Attitude toward Student Statements**

Group	My students work hard	My students do their homework	My students seek extra help	My students set high standards for success	My students have strong prerequisite skills	My students seek to understand the concepts of English I	Overall
Top	<b>2.7</b>	<b>2.5</b>	<b>2.7</b>	<b>2.2</b>	<b>2.0</b>	<b>2.7</b>	<b>2.5</b>
Bottom	<b>2.7</b>	<b>2.4</b>	<b>2.3</b>	<b>2.4</b>	<b>1.9</b>	<b>2.7</b>	<b>2.4</b>

Another way to view this attitude measure is to look at the number of teachers that gave each response and the percentage by group (Table 15). Most of the top teachers agreed with the statement, “My students seek to understand the concepts of English I.” The bottom teachers were split on this statement with four agreeing and three disagreeing. Two-thirds of the top teachers agreed with the statement, “My students seek extra help” while most bottom teachers disagreed.

All but one top teacher disagreed with the statement, “My students set high standards for success.” The bottom teachers were split on this statement with three agreeing and four disagreeing. Two-thirds of the top teachers and most of the bottom teachers disagreed with the statement, “My students have strong prerequisite skills.”

Overall top teachers responded positively about the desire of their students to seek help and to seek to understand English I. They responded negatively to their students having strong prerequisite skills, setting high standards, and doing homework.

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**Table 15**  
**Details of Responses to Attitude Statements**

	My students work hard		My students do their homework		My students seek extra help		My students set high standards for success		My students have strong prerequisite skills		My students seek to understand the concepts of English I		Overall	
	Top	Bottom	Top	Bottom	Top	Bottom	Top	Bottom	Top	Bottom	Top	Bottom	Top	Bottom
# of Strongly Agree	1	0	1	0	0	1	0	0	0	0	0	1	2	2
# of Agree	2	3	1	3	4	1	1	3	2	1	5	3	15	16
# of Disagree	3	4	4	4	2	4	5	4	2	4	2	3	18	21
# of Strongly Disagree	0	0	0	0	0	1	0	0	2	2	0	0	2	3
% of Strongly Agree	16.7%	0.0%	16.7%	0.0%	0.0%	14.3%	0.0%	0.0%	0.0%	0.0%	0.0%	14.3%	5.4%	4.8%
% of Agree	33.3%	42.9%	16.7%	42.9%	66.7%	14.3%	16.7%	42.9%	33.3%	14.3%	71.4%	42.9%	40.5%	38.1%
% of Disagree	50.0%	57.1%	66.7%	57.1%	33.3%	57.1%	83.3%	57.1%	33.3%	57.1%	28.6%	42.9%	48.6%	50.0%
% of Strongly Disagree	0.0%	0.0%	0.0%	0.0%	0.0%	14.3%	0.0%	0.0%	33.3%	28.6%	0.0%	0.0%	5.4%	7.1%

Note: Teacher T5 responded to only one statement.

Teacher responses during focus group interviews echoed these results. In the focus group with top teachers, one teacher explained that her students were unprepared for English I and referred to it as “baby bird complex.” Another teacher added, “They sit there with their little beaks open.” These teachers also indicated that students struggled with tasks that did not give instant feedback the way texting would or with tasks that were hard. One teacher noted that “the immaturity and lack of preparedness will get them every time.” Teachers in the bottom group also expressed concerns about their students. One noted that “My academic classes are not ICR classes (ICR classes are team taught by a regular education and a special programs teacher) but they probably should be” while another added, “There’s basic skills that are missing.” In terms of content, the majority of teachers in both groups expressed concern about lack of preparation in grammar, and some also worried that students did not read enough.

Although teachers in both groups expressed concerns about how well-prepared their students were for English I (regardless of what level English students they taught), there were differences in the way teachers responded to this concern. Teachers in the top group were more likely to help students develop greater capacity while teachers in the bottom group were more likely to enable students to complete work without developing greater capacity. One vivid example is the amount of time bottom teachers spent reading aloud or having their students read aloud in class rather than working proactively with them on specific, explicit reading strategies (see Table 19).

In both the top and bottom group, comments were made about middle school not adequately preparing students. This was evidenced in all four focus group interviews. One teacher explained that these students have been passed along in middle school and are now facing barriers. In the bottom group, teachers frequently offered vague statements suggesting that they felt hopeful about their students. One commented that although teachers had to “battle this feeling of failure and apathy” at her school, the students were beginning to come around. Another added, “I don’t want to give you the wrong impression of my students; I do have

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hopeful students.” During the focus group interview at the bottom school, one teacher said that even the Honors kids “haven’t been around the block” they “don’t know as much as you think”, while another added that the lower students “come to you failing and leave you failing.” Despite expressing these beliefs, however, five of the teachers at the bottom school still described themselves as “successful” in working with their students.

In contrast, teachers from the school with the highest effectiveness index expressed more specifically that they had to “focus on the transition from middle school to high school” and that “getting them into the high school mindset” is a goal in ninth grade. One teacher went on to add that “We’ve got to teach them to learn and how to enjoy learning.”

During school interviews, concerns about transition from middle school to high school were raised, but there were subtle differences between the way the teachers at the school with the highest and lowest effectiveness index approached their work with students. Although both schools had made use of at least some sections of year-long English I rather than just semester-long English I (block schedule), the higher school seemed to be more strategic in how it approached using this extra time. For example, a specific study skills curriculum was built into the year-long English course and called a “seminar.” In addition, teachers of this course intentionally made connections between what they were teaching in the seminar not only to the English content but the content of other courses as well. This sense of connection was also evidenced by the fact that all members of the staff of this school were CRISS<sup>1</sup> trained and make use of those strategies in all content areas. The department chair indicated that students receive a grade in this seminar course and another teacher explained that the expectations in this seminar course are very clear for teachers as well as students, and that there are specific activities that all students complete. Likewise, the teachers at this school spent time a few years ago determining what was “essential” to teach in English I and have been using the same vocabulary program across all English I classes for the past four years. Although they teach the same basic things, they may not do it in the same order or in exactly the same way. These English I teachers said that they have become more data-driven and that they do a good job of bouncing ideas off each other in order to help their students succeed. In essence, the English I teachers and other staff took an approach to working with students that would help students develop the capacity to become more able learners.

In contrast, teachers at the lower school expressed appreciation for each other but seemed less strategic in how they approached acting on the beliefs they had about the students who come to them. English I teachers at this school described themselves as “supportive,” and one teacher said “every newbie that comes in, we try to take care of.” They spoke in general terms of preparing students for their “other years” at this school. They expressed openness to new ideas and a willingness to “reinvent ourselves,” but they did not talk in specifics about how they had developed systems and structures at the school level to ensure that all students received the kind of intensive remediation that they described them needing.

<sup>1</sup> CRISS (Creating Independence through Student-owned Strategies) are instructional strategies designed to be used by teachers in all subject areas to help students learn by reading, writing, talking, and listening.) (Santa, Havens, & Maycumber, 1996)

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Instead, these teachers consistently described their students as “different” from the students at other schools and kept the focus on this. One teacher explained that “My student teaching could never have prepared me to work with these kinds of kids.” Another teacher explained it this way: Imagine that the Standard Course of Study is a house to be built. She explains that at their school they have to build the foundation (which the students come in lacking) at the same time they put on the roof, what students need to learn now. She says that other schools don’t have to rebuild the foundation the way they do. As a result, she says, it is important to look at how far the kids grow even though the school is usually “in the bottom two or three in the district.” In addition, several teachers referred to an unusually high rate of absenteeism and suggested that they have to deal with a more transient population than other schools have. Yet these teachers did not provide details about how they proactively deal with the issues facing these students.

When describing their work, these teachers indicated a more relaxed approach than teachers at the higher school. Whereas a teacher at the higher school said that with the “[School Name] Plan” teachers “don’t have any down time.” Teachers at the other school seemed less cohesive in their response to students. The teachers generally expressed a desire not to have to plan too much together, and one explained that “our timeline is fluid” in terms of making decisions about what to teach and how long to teach it. Another teacher added, “If you told our team... what you had to do... we would revolt.” When asked if they listen to more experienced colleagues, one teacher said “yes” but another said that they “do their own thing” and that “the beauty of this profession is to choose what you feel most passionate about.”

It is possible that the beliefs about students expressed by the teachers at the lower school encourage them to use enabling behaviors rather than help students develop competence and capacity. While both groups of teachers see their students as “deficient” in some way when they arrive in ninth grade, teachers at the higher school seem to have developed a more cohesive and empowering response to aid their students in being successful in not only their class but other classes as well.

In addition to expressing that their students were not adequately prepared for high school English, teachers in both schools said that their students did not set high standards for success. One teacher from the bottom group commented that her students were “disinclined to really work at their education” while a teacher from the higher school said that his students were apathetic and “that’s the reality that they have adopted.”<sup>1</sup>

Another way to gain insight into teacher beliefs about students is to ask them what the key outcomes are for the students in their classes. When asked about that, teachers in the top group were likely to cite “thinking” or being able to “express ideas” while teachers in the bottom group were more likely to cite “pass the EOC” or develop better skills. Teachers from the top group identified goals such as “develop and express their ideas about literature,” “become better thinkers,” or “teach kids to think critically and problem-solve in my classroom.” In the group of bottom teachers, comments such as the following were common: Covering the goals and the

<sup>1</sup> A reviewer of this page who taught English I 35 years ago remembers hearing virtually the same appraisals of students in 1974.

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WCPSS curriculum, “I want my kids to pass,” and “My goal is for the kids to leave with better skills – reading and writing skills.” However, in the focus group with teachers from the lower school, teachers did express a desire to help students “appreciate literature on a much more thoughtful level” even though most of the students there were said to be “tone deaf” and “not sensitive to literature.”

In addition to using information gathered about teacher beliefs from the statements using the Likert scale, the researchers analyzed teacher responses to questions about how they believe students of various subgroups perform in their classes. Students were divided into eleven subgroups consisting of ethnicities, giftedness, disability, and gender. Teachers were then asked the following question: “In your opinion, how have the following subgroups performed in your English I classes during the last 4 years?” Teachers then circled one of the following: “above expectations,” “at expectations,” “below expectations,” or “N/A.”

EOC performance and growth data were used to determine which subgroups were meeting state-defined expectations. Although 81.2% of WCPSS students were proficient on the English I test in 2008-09, the proficiency rate varied greatly among subgroups. White students performed at 93.9% proficiency while only 64.4% of Black/African American students were proficient and 60.9% of Hispanic/Latino students were proficient. Other groups fared less well; the proficiency rate for students with limited English proficiency was 43.8% and students with disabilities was 50.2% (Figure 1). Based on previous test scores, the state ABCs accountability model assigned each English I student an expected scale score target. Of the subgroups on the teacher survey, over 60% of AG, female, Asian, and White students made or exceeded their growth target in 2008-09 (60% or higher is considered high growth). Black/African American, Hispanic/Latino, Male, and SWD student subgroups were below 60% (Figure 4). Using both performance and growth measures, the researchers concluded that district overall results showed that AG, Female, Asian, and White students had met expectations while Black/African American, Hispanic/Latino, Male, and SWD students had not.

Researchers analyzed how teacher responses to the questions about student subgroup performance compared to the district results. One top teacher (T2) chose not to provide data for this question and wrote “You have the data on this” as the response. Table 16 shows the number of top and bottom teachers that chose each response for the four subgroups that were deemed to have met district expectations in English I compared to the four subgroups that did not. The most interesting finding is that only 25% of the bottom teachers’ responses for the lower performing subgroups were “below expectations” compared to 54% of the top teachers’ responses. The difference was found in three of the four low performing subgroups displayed (Black, Hispanic, and SWD) and was most pronounced for Black/African American students where only 43% of bottom teacher responses were “below expectations” compared to 83% of top teacher responses. Neither top nor bottom teachers viewed male students as performing below expectations. It is important to recall that all teachers responded on the survey that they were successful with their classes.

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**Table 16  
Teacher Responses to Students Meeting Expectations**

		Above expectations	At expectations	Below expectations	NA
White	Top Teachers	1	5		
	Bottom Teachers	3	2	2	
Black	Top Teachers		1	5	
	Bottom Teachers		4	3	
Asian	Top Teachers	3	3		
	Bottom Teachers	3	2		2
Hispanic	Top Teachers		2	3	1
	Bottom Teachers	1	4	2	
Female	Top Teachers		6		
	Bottom Teachers	1	5	1	
Male	Top Teachers		4	2	
	Bottom Teachers	1	5	1	
AG	Top Teachers	6			
	Bottom Teachers	3	2	1	1
SWD	Top Teachers		3	3	
	Bottom Teachers	3	3	1	
Four subgroups that met expectations (White, Asian, Female, and AG)	Top Teachers	10	14	0	0
	Bottom Teachers	10	11	4	3
Four subgroups that did not meet expectations (Black, Hispanic, Male, and SWD)	Top Teachers	0	10	13	1
	Bottom Teachers	5	16	7	0
Four subgroups that met expectations (White, Asian, Female, and AG)	Top Teachers	42%	58%		
	Bottom Teachers	36%	39%	14%	11%
Four subgroups that did not meet expectations (Black, Hispanic, Male, and SWD)	Top Teachers	0%	42%	54%	4%
	Bottom Teachers	18%	57%	25%	0%

**RESEARCH QUESTION 3**

**What are the characteristics of the learners in most effective WCPSS English I classes?**

Characteristics of learners in the most effective WCPSS English I classes were determined using data from classroom observations and focus group interviews as well as self-reported data from a student survey on the English I EOC.

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Classroom observations were used to identify level of classroom engagement, level of student work, and student actions. In general, students in both groups were classified as “well managed,” but there were some distinctions between groups in terms of level of student work and student actions.

***Level of Classroom Engagement***

The protocol for identifying level of class engagement came from Teachscape’s (2007) tool for “Standard Look-fors” when conducting walkthroughs. There are three levels:

- Highly engaged: Most students are authentically engaged.
- Well managed: Students are willingly compliant, ritually engaged.
- Dysfunctional: Many students actively reject the assigned task or substitute another activity.

During data analysis, researchers examined the level of engagement given for each episode coded during each classroom observation. The most common code given for episodes was “well managed.” For teachers in the top group, all episodes were coded as at least “well managed” with the exception of one teacher. Most episodes were coded as “well managed” for teachers in the bottom group with the exception of some episodes for three teachers. However, the most noticeable difference was that two top teachers had either two or three episodes coded as “highly engaged.” In contrast, no teachers in the bottom group had episodes which were coded “highly engaged” (Table 17).

**Table 17**  
**Level of Engagement Observed**

<b>Group</b>	<b>Dysfunctional</b>	<b>Well Managed</b>	<b>Highly Engaged</b>
Top	1 out of 7	7 out of 7	2 out of 7
Bottom	3 out of 6	6 out of 6	0 out of 6

Interpretation Example: 1 top teacher out of 7 had at least one episode coded dysfunctional, while 3 bottom teachers out of 6 had at least one episode coded dysfunctional.

Examples of episodes coded as “well managed” in the classrooms of the top teachers were found in field notes.

- “Teacher turns on CD player. Students are quiet; most students write at least once while the song plays.”
- “Teacher tells students that they have two minutes to come up with the best example of the following four terms (simile, personification, alliteration, and metaphor) that they can in the last two minutes. Students are writing.”
- “Students are in their groups. Both teachers are at the two groups. The other teacher, in her group, asks what we know about how a sentence starts. A student says, “Capital letter.” Teacher says, “Okay, who has a capital letter?”

The “well managed” episodes provide evidence of, at minimum, ritualistic compliance and, at most, student participation. Episodes identified as being “highly engaged,” on the other hand,

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demonstrate a level of student contribution to learning that is lacking in the “well managed” episodes. For example, in one class with three out of six episodes (consisting of 67 of the 85 minutes of the block) being identified as “highly engaged,” students made intellectual contributions to the class by challenging positions held by their peers, making statements about the text which evidence analysis, synthesis, and evaluation level, and responding to questions at those levels. Likewise, on seven separate occasions, students who were in the “outer circle” of the conversation voluntarily came to the “hot seat” or sent a note to the teacher in order to be allowed to participate in the discussion, and student comments frequently led to an extension of the conversation.

In one example, students were engaged in a seminar on *To Kill a Mockingbird* (Lee, 1982). Seated in a circle with his students, the teacher posed an initial question. Then a student asked the teacher if they could move from this question in which they each came up with another title for the novel to a different topic. In response to one of the titles raised by another student, she said that Atticus raised Jem well but felt that he tried to “rush her maturity” (referring to Scout) and that even though the line on the cover of the book calls this a “timeless classic of growing up,” it is not a typical way of growing up. This comment, and change in the direction of the discussion, led to a conversation about facing challenges, rushing children to grow up, and the degree to which Atticus is an effective parent. This eventually led to a conversation about morals, and a student suggested that Atticus puts his morals in front of his kids, which makes him “not a good father” but a good person. Throughout this discussion, the teacher was able to step back while students talked directly to each other and used the text and examples from their own lives to explore one of the big ideas of the novel; the role of morals in family and society.

Another example of an episode rated as “highly engaged” in the class of a top teacher involved having students work in small groups to read and analyze a short passage called “Fired.” An example of an uncritical inference test, the activity led students to challenge their assumptions. Working independently in their small groups, students discussed the questions raised in the activity and prepared a response for the rest of the class. As the teacher brought the groups back together to go over the answers, students began leading the discussion with the whole class themselves without prompting. The teacher then involved the students in identifying the purpose for the activity in light of an upcoming task they were going to perform.

### ***Level of Student Work***

The protocol for classifying level of student work also came from the Teachscape (2007) “Standard Look-fors” tool. There are six levels.

- Recalling information (knowledge).
- Understanding information (comprehension).
- Using information in a new way (application).
- Breaking down information into parts (analysis).
- Putting information together in new ways (synthesis).
- Making judgments and justifying positions (evaluation).

Because the differences between these levels are subtle and challenging to note in the midst of an observation, the researchers combined some levels to indicate that work seemed to be at the

“low,” “middle,” or “high” end of the continuum of types of thinking. Knowledge and comprehension were identified as “low,” application and analysis were identified as “middle,” and synthesis and evaluation were identified as “high.” For this study, it is not assumed that “low” means that the kind of thinking or work is easier. However, it does imply that fewer processes might have to be in play in order for this type of thinking to occur or work to be produced. Moreover, if students are only required to perform at “low” they miss out on opportunities for critical response.

There were some differences in the level of student work observed between the students of teachers in the top group and students of teachers in the bottom group. In the top group of teachers, while students of all the teachers did some work at the “low” level, all of the teachers also had students performing work at the “middle” level, and two of the teachers (T4 and T5) had students whose work moved into the “high” level. In the bottom group, students during every observation completed work at the “low” level, but only two teachers (B2 and B6) were observed having students perform work at the “middle” level. Teacher B6 also had students who performed some work at the “high” level (Table 18).

**Table 18**  
**Level of Student Work Observed**

Group	Low Level Thinking Tasks	Middle Level Thinking Tasks	High Level Thinking Tasks
Top	7 out of 7	7 out of 7	2 out of 7
Bottom	6 out of 6	2 out of 6	1 out of 6

Interpretation Example: 7 top teachers out of 7 were observed using middle level thinking tasks, while only 2 bottom teachers out of 6 were observed using middle level thinking tasks.

***Student Actions – Teacher Observations***

Like level of class engagement and level of student work, the protocol for student actions came from the Teachscape (2007) “Standard Look-fors” tool. Five student actions were identified: Listening, Reading, Speaking, Working with hands-on materials, and Writing. Researchers adapted the use of these student actions by denoting with a “+” or “-” when the observed actions seemed to indicate powerful use of the action versus a more passive use of the tool. For example, having students speak in response to open-ended questions that required critical thought would receive a “+” whereas having students speak by repeating back the rote answer to a question would receive a “-.”

In these observations, students of all teachers in both the bottom and the top groups were noted as “Listening.” In the top group, however, four teachers received a “+” because students were having to listen in order to think critically and respond in some way. For example, in one teacher’s class students were involved in a seminar where they not only listened to the teacher but also to other students in order to compose thoughts that they could share to move the discussion in a new direction or deeper territory. Likewise, students in another class were given

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a group task which involved not only having to solve a problem but also do it through discussion and collaboration with peers. In the bottom classes, in contrast, students were more often listening to the teacher speak, listening to someone read aloud, sharing personal responses, or responding to knowledge or comprehension level questions.

Students in all of the bottom classes were noted as “Reading,” but this was the case in only one class in the group of top teachers. In the bottom classes, reading typically referred to reading a testlet while practicing for the EOC test, following along while the teacher read, or reading questions.

Students of teachers of both the bottom and top groups were noted as “Speaking.” This was the case in all observations for teachers in the top group and almost all observations of teachers in the bottom group. The difference, however, is in type of speaking. Students in five observations of teachers in the top group were noted as speaking with a “+.” Just as students in the seminar in the example above had to listen in order to speak, when they did speak, they were expressing their own constructed thoughts that combined knowledge of the text, careful attention to the conversation, and often synthesis of ideas. On the other hand, students of only one teacher in the bottom group attained this type of speaking. In observations of two of the teachers, speaking was noted but given a “-” because the speaking did not take students beyond rote answers. Although both groups of teachers provided opportunities for students to both listen and speak in class, teachers in the top group were more likely to involve them in responding to other students, speaking for a significant part of the class, or speaking based on having employed at least “middle” range thinking skills.

Students were observed working with hands-on materials in only one top class and writing was observed in the classes of the two top teachers (T1 and T2) and three bottom teachers (B2, B4, and B5). Table 19 summarizes these results.

**Table 19**  
**Summary of Student Actions**

Group	"+Listening"	Reading	"+Speaking"	Working with Hands-On Materials	Writing
Top	4 out of 7	1 out of 7	5 out of 7	1 out of 7	2 out of 7
Bottom	0 out of 6	6 out of 6	1 out of 6	0 out of 6	3 out of 6

Although this question deals with “characteristics of the learners in English I classes,” these characteristics are largely determined by the work of teacher orchestration. In each of the three areas observed (level of class engagement, level of student work, and student actions), teachers have a direct and clear opportunity to create an environment that will encourage, if not demand, specific student behaviors and actions. In essence, teachers set the stage. They determine whether students will be passive observers or active participants in their own and others’ learning.

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*Student Actions – Student Surveys*

Two items on the student English I survey asked students to indicate instructional activities in which they had participated.

- In which of the following activities have you participated for your English Language Arts (ELA) class this year? Mark all that apply.
- Of the following instructional activities, in which have you participated most often in your ELA class this year. Mark up to three.

The same five activities were choices for each item.

- A. discussed different interpretations of what was read or studied
- B. worked in pairs or small groups to talk about something you have read or studied
- C. listened to teacher explaining something about ELA
- D. conducted research on a specific subject or issue.
- E. conferenced with your teacher or peers about writing or other work.

There were 610 student responses for top teachers and 678 responses for bottom teachers. A significance test comparing the proportion of students of top teachers choosing each activity to those of bottom teachers found significantly more students of top teachers choosing that they had participated in each activity than the students of bottom teachers. For the item that asked for “most often”, both groups chose the same three top choices (C, B, A above) with a significant difference in favor of the top teachers on choice C and A (Table 20).

**Table 20**  
**Student Survey Response Rates**

In which of the following instructional activities have you participated for your ELA class this year? Mark all that apply						
Group	n	A. Discussed different interpretations of what was read or studied	B. Worked in pairs or small groups to talk about something you have read or studied	C. Listened to teacher explaining something about ELA	D. Conducted research on a specific subject or issue	E. Conferenced with your teacher or peers about writing or other work
Top	610	86.4%	91.1%	91.3%	75.1%	72.0%
Bottom	678	69.3%	83.5%	85.3%	64.0%	40.1%
		significant difference at the .01 level	significant difference at the .01 level	significant difference at the .01 level	significant difference at the .01 level	significant difference at the .01 level

Of the following instructional activities, in which have you participated most often in your ELA class this year. Mark up to three.						
Group	n	A. Discussed different interpretations of what was read or studied	B. Worked in pairs or small groups to talk about something you have read or studied	C. Listened to teacher explaining something about ELA	D. Conducted research on a specific subject or issue	E. Conferenced with your teacher or peers about writing or other work
Top	610	64.1%	69.3%	82.8%	24.3%	20.2%
Bottom	678	53.8%	67.1%	75.7%	27.9%	11.8%
		significant difference at the .01 level	no significant difference	significant difference at the .01 level	no significant difference	significant difference at the .01 level

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Another survey item was “Which of the following kinds of texts have you read or studied this year in your English Language Arts class? Mark all that apply.” There were six choices.

- A. Fictional books or stories
- B. Plays
- C. Poetry
- D. Nonfiction (biography, autobiography, memoirs, etc.)
- E. Nonfiction (informational book, historical documents, etc.)
- F. Articles from newspapers and/or magazines

The most read choice for students in top classes was B (plays) followed closely by A (fictional books or stories) and C (poetry). Nearly all of the students in the top teachers’ classes chose choices A and B, and there were significantly more top teacher students choosing these choices than bottom teacher students. Choices D and E were chosen by less than 60% of all students and choice F by less than 50% (Table 21). Teachers T3, B5, and B6 had most of their students choosing all six choices.

**Table 21**  
**Student Survey Response Rates**

Which of the following kinds of texts have you read or studied this year in your English Language Arts class? Mark all that apply.							
Group	n	Fictional books or stories	Plays	Poetry	Nonfiction (biography, autobiography, memoirs, etc.)	Nonfiction (informational book, historical documents, etc.)	Articles from newspapers and/or magazines
Top	610	92.5%	94.9%	89.8%	57.7%	53.8%	42.5%
Bottom	678	87.5%	86.3%	86.3%	58.8%	55.8%	46.9%
		significant difference at the .01 level	significant difference at the .01 level	no significant difference	no significant difference	no significant difference	no significant difference

**RESEARCH QUESTION 4**

**How do the most effective WCPSS English I teachers instruct their students?**

Analysis of observations, focus groups, and surveys were used to understand teacher use of research-based strategies, instructional practices, and planning for instruction. Several patterns emerged from this analysis. First, every teacher in the top group used research-based strategies. The strategies observed most often were reinforcing effort and providing recognition, nonlinguistic representation, and cooperative learning. Second, while both top and bottom teachers made use of “Teacher Question and Answer,” teachers in the top group were more likely to also make use of “Discussion” as an instructional practice for classroom talk. Finally, teachers in the top group were more likely to exhibit instructional planning that was collaborative and cohesive than teachers in the bottom group.

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### *Research-based Strategies*

During the 2004-05 school year, all high school teachers and administrators in WCPSS took part in school-level book studies of Marzano, Pickering & Pollock's, *Classroom Instruction that Works* (2001). The book study groups met at various times throughout the year and focused on the effective instructional strategies offered in the text. Marzano et al. used meta-analysis to identify instructional strategies and calculate for each an effect size (a measure of the difference in academic performance of groups that used the particular strategy compared to those that did not).

Nine strategies were found to be most effective:

1. Identifying similarities and differences.
2. Summarizing and note taking.
3. Reinforcing effort and providing recognition.
4. Homework and practice.
5. Nonlinguistic representation.
6. Cooperative learning.
7. Setting objectives and providing feedback.
8. Generating and testing hypotheses.
9. Questions, cues, and advanced organizers (Marzano et al., 2001, p. 7).

Because the teachers were familiar with instructional strategies deemed effective by Marzano et al., this study analyzed implementation of these instructional strategies. Items on the teacher survey addressed the teachers' level of implementation (*daily, often, sometimes, or never*) of each of the strategies identified and described in *Classroom Instruction that Works*. Observations of teachers either confirmed or contested the implementation level of daily use as self-reported on the teacher survey (see Table 22).

The goal of Marzano's book is to help teachers understand what *they* can do to make a difference for students even when they must deal with issues beyond their control or teach in a school that is not effective overall. Teachers in the top group in this study were observed using eight of the nine strategies. Teachers in the bottom group were observed using seven. All teachers in the top group were observed using some of the strategies; in fact, they all used at least two. Teacher T1 was observed using six of the strategies and Teacher T3 five strategies. In the bottom group, teacher B3 showed no evidence of using any of the strategies yet had reported daily use of two of the strategies. The most commonly noted strategies in the top group were use of reinforcing effort and providing recognition, nonlinguistic representation, and use of cooperative learning. None of the teachers in the bottom group made use of cooperative learning beyond one quick two-minute "pair-share." In the high group, however, cooperative learning was evidenced in five of the classrooms. Reinforcing effort and providing recognition and nonlinguistic representation were each observed being used by four of the seven top teachers. By contrast, nonlinguistic representation and cooperative learning was observed in only one bottom teacher observation and reinforcing effort and providing recognition in only two bottom teacher observations.

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Uses of non-linguistic representation in the classrooms of the top teachers were noted:

- The teacher gives two pieces of paper to each of three students. She then gives one student a paperclip, one student a piece of tape, and one student a staple. The students are instructed to connect their two pieces of paper using the tool provided. The teacher uses this to demonstrate the relative strength/weakness of various forms of punctuation which can connect two independent clauses.
- A teacher assigns different “words” and punctuation marks to students and has them stand in front of the room and wear signs. By having the students move around, she is able to help students visualize how sentences can be rearranged depending upon how punctuation is used.

On the survey, teachers indicated the degree to which they perceive themselves using each of the nine categories of strategies. For some of the categories, the survey responses seemed to match clearly what was observed. For example, no teacher in either group identified “Generating and Testing Hypotheses” as something they reported doing daily and this category was not observed in any of the class visits. For some categories, the match between what was reported and what was observed was not as clear. For example, all teachers in the bottom group reported using cooperative learning often except one who reported using it sometimes and T7 reported daily use. However, in the observations, only one bottom teacher was observed using that strategy. Also, teachers in the bottom group reported using non-linguistic representation more regularly than teachers in the top group, yet teachers in the top group were observed more often using that strategy in instruction.

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**Table 22**  
**Reported and Observed Use of Marzano Strategies**

Top Teachers		Teacher	T1	T2	T3	T4	T5	T6	T7
Strategy	School	S06	S02	S09	S14	S09	S01	S12	
1. Identifying similarities and differences	survey response	sometimes	daily	daily	daily	often	often	often	
	observation		x	x					
2. Summarizing and note taking.	survey response	sometimes	daily	often	daily	sometimes	often	sometimes	
	observation	x	x				x		
3. Reinforcing effort and providing recognition.	survey response	sometimes	daily	often	daily	often	daily	daily	
	observation	x		x		x	x		
4. Homework and practice.	survey response	often	daily	often	daily	often	daily	daily	
	observation	x		x					
5. Nonlinguistic representation.	survey response	sometimes	sometimes	sometimes	often	sometimes	sometimes	sometimes	
	observation	x		x	x		x		
6. Cooperative learning.	survey response	often	often	often	often	sometimes	daily	daily	
	observation	x		x	x	x	x		
7. Setting objectives and providing feedback	survey response	daily	daily	often	often	sometimes	often	daily	
	observation				x				
8. Generating and testing hypotheses.	survey response	sometimes	sometimes	often	often	often	sometimes	often	
	observation								
9. Questions, cues and advanced organizers	survey response	often	daily	daily	often	often	daily	daily	
	observation	x			x				
<b>Bottom Teachers</b>		<b>Teacher</b>	<b>B7</b>	<b>B6</b>	<b>B5</b>	<b>B4</b>	<b>B3</b>	<b>B2</b>	<b>B1</b>
<b>Strategy</b>	<b>School</b>	<b>S10</b>	<b>S05</b>	<b>S14</b>	<b>S03</b>	<b>S13</b>	<b>S04</b>	<b>S06</b>	
1. Identifying similarities and differences	survey response	often	often	often	often	often	often	daily	
	observation						x		
2. Summarizing and note taking.	survey response	sometimes	sometimes	sometimes	daily	sometimes	sometimes	sometimes	
	observation	x	x				x	x	
3. Reinforcing effort and providing recognition.	survey response	sometimes	often	sometimes	daily	daily	often	daily	
	observation		x	x					
4. Homework and practice.	survey response	often	sometimes	often	daily	sometimes	often	sometimes	
	observation	x	x	x			x		
5. Nonlinguistic representation.	survey response	often	daily	sometimes	often	no answer	often	often	
	observation						x		
6. Cooperative learning.	survey response	often	often	sometimes	often	often	often	daily	
	observation						x		
7. Setting objectives and providing feedback	survey response	daily	daily	sometimes	often	daily	often	sometimes	
	observation								
8. Generating and testing hypotheses.	survey response	often	sometimes	sometimes	sometimes	never	sometimes	often	
	observation								
9. Questions, cues and advanced organizers	survey response	daily	often	daily	often	often	daily	often	
	observation		x				x		

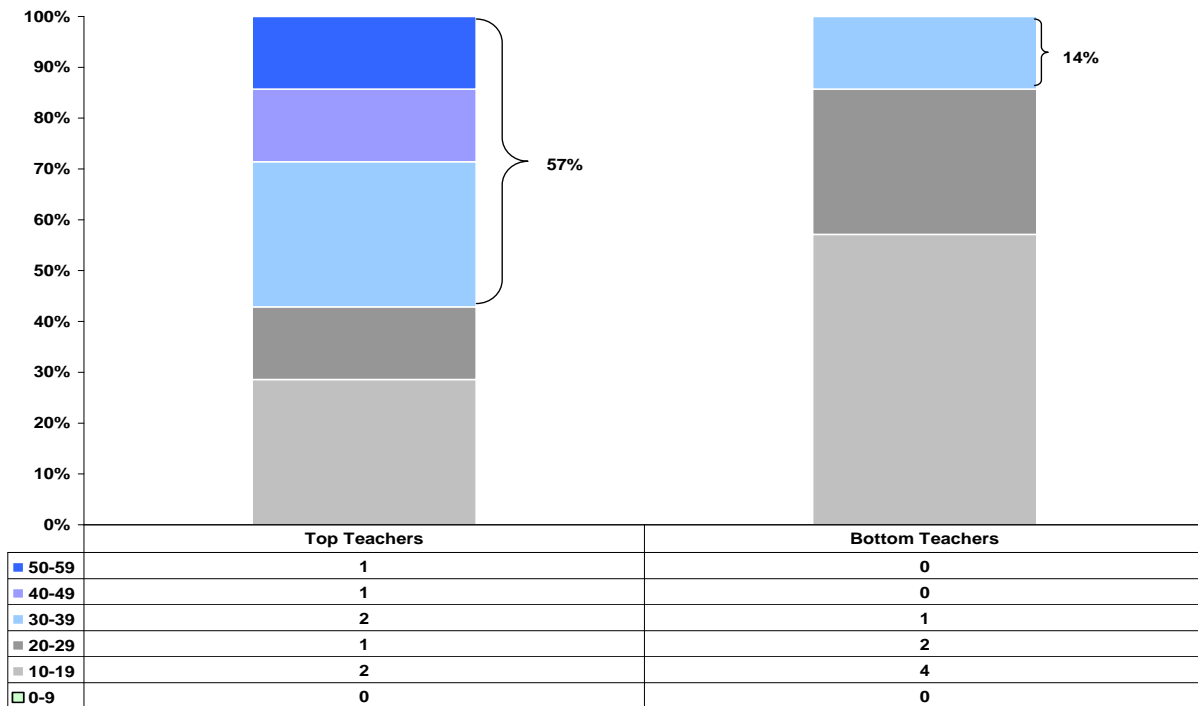
Note: x denotes that the strategy was observed

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*Classroom Talk*

Data from observations, surveys, and focus group interviews illuminate a distinction between teachers from the top group and the bottom group. All teachers in both groups were identified as using “Question/Answer” as an instructional strategy, but more episodes for high teachers were coded as using middle level thinking and higher level thinking, as noted before in the reporting of student actions. On the survey, 57% of teachers in the top group reported using whole group discussion at least 30% of the time in their classes, with one teacher reporting 50%. The majority of teachers (86%) in the bottom group reported using whole group discussion between 10% and 20% of the time, with one reporting 35%. During observations, four top teachers were seen using discussion as an instructional practice compared to one bottom teacher (Figure 8).

**Figure 8**  
**Reported Use of Whole Group Discussion**



Note: Blue represents 30% or more time use of whole group discussion

Gray represents less than 30% time use of whole group discussion

Interpretation Example: 2 top teachers and 1 bottom teacher reported using 30-39 percent of their instructional time in whole group discussion. 4 (2+1+1) top teachers reported using 30% or more of their instructional time in whole group discussion. So 4 out of 7 (57%) top teachers spent 30% or more of their time in whole group discussion compared to 1 out of 7 (14%) of the bottom teachers.

*In-class reading*

As noted before in the reporting of student actions, in-class reading was observed in all classes of the bottom teachers and only one of the top classes. Much of it consisted of reading aloud. One observer was told by a bottom teacher that it was necessary to read aloud because many of the

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