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# EFFECTIVE TEACHING PRACTICES IN U.S. HISTORY

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## **ABSTRACT**

This study analyzed the instructional practices of more versus less effective U.S. History teachers identified by a multiple regression model. Using surveys, observations, and focus-group interviews, the study found that the most effective teachers had a more complete package of rigor, relevance, and relationship strategies than less effective teachers. Effective teachers had strong content knowledge, prepared their own materials, taught reading and note-taking skills, used time wisely, and connected history to themes across time. Relationships with students were of utmost importance to effective teachers. They gave frequent positive feedback and believed that all students could succeed. Effective teachers created an atmosphere of mutual respect, in which both teachers and students were enthusiastic. These results can be used to motivate teacher and school improvement efforts in a number of ways.

## **INTRODUCTION**

# IMPORTANCE OF TEACHER QUALITY

Over the past twenty years, the importance of the classroom teacher has emerged as a key component of school reform. In 1987, the National Board for Professional Teaching Standards was established with a mission of advancing the quality of learning by advancing the quality of teaching. In 1989, the National Board issued a policy statement, *What Teachers Should Know and Be Able to Do* (National Board for Professional Teaching Standards [NBPTS], 1989), which posited five core propositions to guide the certification of National Board Teachers:

- commitment to students and learning,
- knowledge of the subject taught and effective methods of teaching it,
- responsibility for managing and monitoring student learning,
- systematic reflection on practice that leads to improved practice, and
- membership in a learning community.

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The Elementary and Secondary Education Act of 1965 (ESEA), amended by the No Child Left Behind Act of 2001 (NCLB), also includes sections concerning teacher quality (U.S. Congress, 2001). Under NCLB, every state must develop and implement a plan to insure that all students will be taught by a "highly qualified teacher" (HQT; sec.2101). Margaret Spellings, U.S. Secretary of Education, stated in a letter dated October 21, 2005, "There is also evidence that states are improving the quality of their teaching forces." She wrote that the U.S. Department of Education was committed to the goal of every child being taught by an HQT by the end of 2005-06, and then outlined the actions that would be taken to support states in reaching this goal (Spellings, 2005). The NCLB law requires that all academic core subject teachers be highly qualified. The NCLB law (U.S. Department of Education, 2006) uses three key guidelines to determine whether a teacher is highly qualified:

- at least a bachelor's degree in the subject taught,
- full state teacher certification, and
- demonstrated knowledge in the subject taught.

The importance of teachers is recognized by national subject-specific professional teaching organizations. National teaching standards have been written for each of the core subject areas. In the field of social studies, *The National Standards for Social Studies Teachers* (National Council for the Social Studies [NCSS], 2002) is primarily a document devoted to setting forth subject-matter standards. The standards for delivering "Powerful Social Studies" are defined using five principles of teaching and learning. These principles are that teaching should be meaningful, integrative, value-based, challenging, and active.

NCSS has also written a position paper, A Vision of Powerful Teaching and Learning in the Social Studies: Building Social Understanding and Civic Efficacy (NCSS, 1994), which places the five principles in the form of a guiding vision of powerful social studies teaching.

## MEASUREMENT OF TEACHER QUALITY

The main measure of the success of the NCLB act is the performance of students on standardized tests. 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). Using student test performance as a measure of teacher quality is simple if used for labeling purposes only. Using student test performance as a reflective piece of information that can move teacher quality toward a vision of powerful teaching takes local administrative support and research.

# IMPORTANCE OF STUDYING TEACHER QUALITY

In 2006-07, 74.2% of the U.S. History students in Wake County Public Schools (WCPSS) were proficient on the North Carolina End-of-Course (EOC) U.S. History exam. The proficiency rate for White students was 85.5%, but only 49.3% for Black/African American students. Students who entered a North Carolina high school in 2006-07 must not only earn a U.S. History credit, but must also pass the North Carolina State EOC exam to graduate (North Carolina Department

of Public Instruction [NCDPI], 2007b). It is of increasing importance that history teachers implement instructional practices that ensure success for all students, because of the importance of passing this course and also the state EOC exam.

## **PURPOSE OF STUDY**

This research study had two main objectives:

- Study, improve, and implement a WCPSS Value-Added Instructional Improvement Analysis Model.
  - ► Collect WCPSS-specific data that will help teachers, school, and district leadership understand their current practices in U.S. History.
  - ▶ Identify and share best teaching strategies in U.S. History 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 improvement.

Success in this study was defined by using a multiple regression analysis of the state EOC standardized tests. This analysis generated for each student, teacher, and school a 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). The study brings value-added meaning to U.S. History 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 valued-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

U.S. History is a North Carolina high school graduation course requirement. Starting with the entering freshmen class of 2006-07, students are also required to score proficient on the state U.S. History EOC exam. The course is currently offered three ways in WCPSS:

- academic (average students),
- honors, and
- advanced placement [AP].

In addition, two WCPSS schools have honors and academic students in the same class, and two schools have a Paideia class. 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 at grades 9-11. Teachers emphasize critical and analytical thinking skills and engage students in weekly seminars and supervised practice referred to as coaching.

## U.S. HISTORY AND THE STATE ACCOUNTABILITY MODEL

In North Carolina, EOC exams are administered in 10 high school courses, including U.S. History. 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, 2007b).

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, free or reduced-price lunch students [FRL], academically gifted students [AG], etc.).

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 Endof-Grade (EOG) and EOC tests compared to all other students who took the test in the standardsetting 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". If the school makes expected growth, all teachers receive a monetary bonus, regardless of the percentage of students who score proficient on the tests. 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 (NCPDI, 2007a).

In 2005-06, 69.6% of the U.S. History students in WCPSS scored proficient. The percentage of proficient students at the 18 WCPSS high schools ranged from 50.6% to 86.6%, with three schools below the state average of 56.8%. The average scale scores across schools ranged from 148.2 to 159.4. Four schools were below the state average of 151.4. A growth measure was not calculated for schools in 2005-06, since this was the first year of testing the new curriculum implemented in 2003-04. In Table 1, the schools are labeled A to R, with A having the highest percentage of students scoring at Level III or IV and R having the lowest percentage. Also note that the school with the lowest percentage proficient (school R) is not the same as the school with the lowest average scale score (school O).

Table 1 2005-06 U.S. History Outcomes at WCPSS High Schools

School	% at Level III or IV	Average Scale Score
Α	86.6%	159.4
В	79.0%	156.0
С	79.0%	157.2
D	78.4%	156.5
Е	78.1%	156.8
F	73.1%	154.1
G	72.9%	155.5
Н	71.3%	154.4
	70.4%	154.7
WCPSS	69.5%	154.3
J	69.1%	153.9
K	68.9%	153.5
L	66.9%	153.2
M	66.8%	153.4
N	59.0%	150.0
0	57.4%	148.2
STATE	56.8%	151.4
Р	56.6%	152.0
Q	55.4%	151.0
R	50.6%	150.1

#### 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 believed that other analyses of student achievement data could 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 on state tests and has generated an "effectiveness index" for each school that ranks the schools within WCPSS by their effectiveness with the students who attend their school. The 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, e.g. self-contained), FRL status, and AG status AG 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 scores predictors. The residual score for a student is the difference between the student's actual score and the score that the regression analysis model 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, students with the same previous test scores and program identifier.

As an example, Figure 1 gives a graphical visual of the regression analysis for Algebra I with three of the many possible lines. It shows that the predictions are both dependent on previous EOG and/or EOC scores and also the student's program characteristics, such as AG or a student with a disability (SWD) in a resource setting who is also FRL. The middle line could represent students with no identifiers (e.g., typical students).

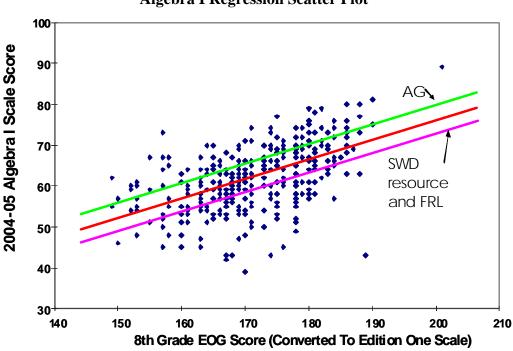
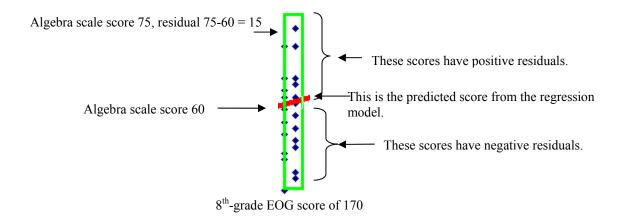


Figure 1 Algebra I Regression Scatter Plot

Figure 2 shows one vertical slice of the regression model for students whose prediction line is the middle line of Figure 1 and whose 8<sup>th</sup>-grade EOG score was 170. 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 2
Student Residuals for Average Students with No Program Identifiers



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 with at least 30 students who have test scores and previous scores. 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 other students in other schools. Values between -1 and +1 are within one standard deviation of the district average and are considered "typical" or expected (68% of scores should be in this range).

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.

Table 2 Effectiveness Indices for a WCPSS High School 2005-06

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 roster, along with the average residual for the section.

Table 3 is a sample roster for a 2006-07 U.S. History class of 17 students. For each student, the predictor scores are shown. The predictors for the U.S. History EOC were the 8th-grade reading and mathematics scores and the English 1 EOC score. The roster then displays the U.S. History 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 -1.02. 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 8 and Student 16 have the same scale score on the U.S. History EOC exam, but Student 8 has a negative residual while Student 16 has a positive residual. Student 16 has a lower scale score than Student 9 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 to 5 have no residuals, as these students are missing previous test scores.

Table 3
Sample High School U.S. History EOC Residual Roster

Name	8 <sup>th</sup> -Grade EOG	8 <sup>th</sup> -Grade EOG	EOC	2007	2007
	Reading Scale	Math Scale	English 1	U.S. History	U.S. History
	Score	Score	Scale Score	Scale score	Residual
Student 1	•	•	•	155	•
Student 2	•	•	•	156	•
Student 3	•	292	59	158	•
Student 4	•	•	•	153	•
Student 5	•	•	•	138	•
Student 6	278	282	64	150	-9.55
Student 7	269	286	64	150	-9.02
Student 8	272	282	59	147	-8.62
Student 9	270	278	69	151	-8.02
Student 10	262	271	59	146	-4.92
Student 11	253	268	53	142	-4.44
Student 12	265	269	61	153	0.73
Student 13	249	262	53	146	1.75
Student 14	282	277	68	162	3.97
Student 15	266	281	61	159	4.20
Student 16	248	251	52	147	7.09
Student 17	270	281	60	170	14.62

Note: Class Average = -1.02 Standard deviation = 6.04

Interpretation Example: Student 16 had an 8<sup>th</sup>-grade reading scale score of 248, an 8<sup>th</sup>-grade math scale score of 251, and an English 1 scale score of 52. Student 16's 2007 U.S. History scale score was 147 and the student's residual was 7.09. This student scored among the top 16% of students with the same U.S. History score, the same 8<sup>th</sup>-grade reading and math scores, the same English 1 score, and the same academic 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 district wide 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 U.S. History outcomes and practices is the third 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.

#### **METHOD**

The biology study 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. Since the effectiveness indices and teacher residual averages both use residual values that are calculated using student test results, that are known to contain error, combining residuals over three consecutive years of data both reduced the test 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. A specialist from C&I took the lead in interpreting classroom observations while a specialist from E&R took the lead in data collection and analysis.

## 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 134,000 in 2007-08, the largest in North Carolina and 19<sup>th</sup> largest in the nation. There were 15 high schools that had administered U.S. History EOC tests in 2001-02, 2002-03, and 2005-06 (there were no history EOCs in 2004 or 2005). 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 U.S. History effectiveness indices for these 15 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. It is hard to make many conclusions since because of a break in testing. A new curriculum was implemented in 2003-04. Note that both School 4 and School 11 went from top middle to high effectiveness. School 5 and School 15 dropped to low on the new test and school 9 was low two of the three years.

Table 4
School-Level WCPSS Effectiveness Indices

School	2001-02	2002-03	2005-06
1	M-	M-	M+
2	M-	M-	M-
3	M-	M-	M+
4	M+	M+	Н
5	Н	M+	L
6	Н	M+	M+
7	M+	Н	M-
8	M+	Н	M+
9	L	M-	L
10	M+	M-	M+
11	M+	M+	Н
12	M-	Н	M+
13	M-	M-	M-
14	M+	M-	M+
15	M+	M-	L

Note: 1. H = effectiveness index > 1

2. L = effectiveness index < 1

3. M+= effectiveness index between 0 and 1

4.  $M_{\bullet}$  = effectiveness index between -1 and 0

In 2005-06, there were 90 high school U.S. History teachers at the 19 WCPSS high schools who tested students in U.S. History. Twenty-nine teachers (32% of the 90 teachers) had taught U.S. History in 2001-02, 2002-03, and 2005-06 and were teaching in 2006-07, which made them eligible for this study. For these 29 teachers, the average student residual was calculated for 2005-06, for combined 2001-02 and 2002-03, and for all three years. The teachers were ranked on teacher effectiveness from highest to lowest using the 2005-06 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 ten highest 2005-06 residual averages were labeled T1-T10 and teachers with the ten lowest averages were labeled B1-B10. The practice of these 20 teachers became the ultimate focus of this study.

## INSTRUMENTS, DATA COLLECTION, AND ANALYSIS PROCEDURES

In addition to these student achievement scores, three other types of data were collected for this study. First, a survey was prepared and distributed to all 29 teachers with three years of residual scores. The teachers answered 41 written survey questions concerning preparation, planning, use of time, schedules, use of data, and student interaction.

Second, one of the two principal investigators for this study observed each of the 20 teachers identified as most ("top teachers") or least ("bottom teachers") effective. The observation instrument was adapted from the ones previously used in the biology and Algebra I studies (Haynie, 2006). Both of the observers were trained in supervisory observations.

Third, school and teacher focus-group interviews were conducted. There were two school focus groups: one at a school with a high 2005-06 school effectiveness index, and one at a school with a low 2005-06 school effectiveness index. There were also teacher focus-group interviews of top teachers and bottom teachers. The same questions were explored at all four focus-group interviews.

#### **RESULTS**

## STUDENT ACADEMIC ACHIEVEMENT

Table 5 gives the residual average (in scale score points), the standard deviations of the residual averages, and the percentages of White and Black/African American students who scored at Level III or IV (considered proficient) for the 20 top and bottom teachers of this study. The school code used is the same as in Table 4. The residual averages ranged from -2.53 to 4.33. The top 10 teachers were in nine schools and the bottom 10 teachers were in seven schools. Three schools had top and bottom teachers, with the bottom four teachers in the same schools as teachers T1, T2, and T5.

The ability level of the students is best characterized by the type of U.S. History class that they are taking. Of the top 10 teachers, three were teaching AP courses only, one was teaching honors only, one AP and honors, two<sup>1</sup> honors and academic, and three<sup>2</sup> were teaching all three levels. Of the bottom teachers, one was teaching AP and honors, one AP and academic<sup>3</sup>, three honors and academic, two<sup>4</sup> all three levels and three were teaching academic only. There were top teachers exhibiting success at all three levels. Yet there were more AP classes among the top teachers and more academic classes among the bottom teachers.

The percentage of White students scoring a Level III or IV on the 2005-06 U.S. History EOC ranged from 77% to 100% for top teachers (9 teachers above 90%). The range for bottom teachers was 25% to 99%, with only one teacher above 90%. The percentage of Black/African American students scoring proficient ranged from 33% to 100% for top teachers. Five top teachers had proficiencies above 90%. The bottom teachers' proficiencies for Black/African American students ranged from 30% to 86%, with no proficiencies above 90%. Note that teacher B1 has higher student performance on the EOC exams (that is, larger percentages of both white and black student proficiencies), but a much lower residual average than teacher T3.

Table 5<sup>5</sup>
2005-06 Performance Indicators for Top and Bottom Teachers

Teacher	School	Res_mean	Res_stdev	% prof white	n	%prof black	n	Achievement Gap	Type of Classes
T1	S1	4.33	5.03	94	66	100	9	-6	AP, Honors, Academic
T2	S15	3.65	5.29	100	79	100	4	0	AP only
T3	S11	3.65	6.27	77	48	75	12	2	AP, Honors, Academic
T4	S6	3.20	5.26	94	32	100	12	-6	Honors, Academic
T5	S10	2.88	4.40	94	32	100	12	-6	AP, Honors
T6	S4	2.78	5.31	96	118	100	7	-4	AP, Honors, Academic
T7	S3	2.69	6.13	93	88	50	2	43	AP only
T8	S9	2.67	5.62	97	29	33	9	64	Honors only
Т9	S10	2.36	5.45	93	92	64	11	29	Honors, Academic
T10	S2	2.32	5.45	98	50	NA	0	NA	AP only
B10	S7	0.50	5.53	83	54	71	24	12	Honors, Academic
B9	S5	0.46	4.58	99	86	86	7	13	AP, Honors, Academic
B8	S8	0.29	5.66	73	40	53	40	20	AP, Honors, Academic
B7	S14	0.15	5.48	25	12	30	20	-5	Honors, Academic
B6	S5	-0.37	6.79	72	78	56	25	16	Academic only
B5	S8	-0.68	5.12	86	15	50	6	36	AP, Honors
B4	S1	-1.08	5.86	87	47	41	22	46	AP, Academic
В3	S10	-1.22	5.60	75	36	56	16	19	Academic only
B2	S15	-2.22	5.16	65	79	42	31	23	Academic only
B1	S15	-2.53	6.00	83	18	80	5	3	Honors, Academic

<sup>&</sup>lt;sup>1</sup> Corrected from three to two

<sup>&</sup>lt;sup>2</sup> Corrected from two to three

<sup>&</sup>lt;sup>3</sup> Inserted "one AP and Academic"

<sup>&</sup>lt;sup>4</sup> Corrected from three to two

<sup>&</sup>lt;sup>5</sup> In the table, under Types of Classes, bottom teachers, corrected from "AP, Honors, Academic" to "AP, Academic"

Figure 3 displays the performance of students who took U.S. History in AP classes, honor classes, or academic classes, comparing student-level performance in top teachers' classes to the student level performance in bottom teachers' classes. Level IV is divided into lower and higher segments in order to show that top AP or honors teachers not only have a larger percentage of students in Level IV, but also a larger percentage of students scoring in the top of Level IV compared to bottom AP or honors teachers. In general, students in AP are the academically strongest students, while students in the academic sections have weaker previous test scores.

100% ■ IV top 90% 80% IV 70% bottom 60% 50% III 40% 30% | | | | 20% 10% 0% **AP Top** AP Bottom **Honors Top** Honors **Academic** Academic ALL **Teachers Teachers Teachers Bottom** Top **Bottom** students **Teachers Teachers** Teachers

Figure 3
Comparison of Student Level Performance

Interpretation Example: About 89% of AP U.S. History students in the classes of the top teachers of this study scored Level IV (with 20% at the top of Level IV) on the U.S. History EOC, compared to approximately 61% (with 5% at the top of Level IV) of the AP U.S. History students in the classes of the bottom teachers.

#### TEACHER EXPERIENCE AND PREPARATION

Survey results showed both similarities and differences in the experience levels of the top and bottom teachers. The years of teaching experience for top teachers ranged from 7 to 35 years, with 7 to 34 of those years in U.S. History. The bottom teachers had years of teaching experience that ranged from 6 to 37 years, with 2 to 22 in U.S. History. Two top teachers had

fewer than 11 years of teaching experience, while four bottom teachers had fewer than 11 years. Yet a more striking difference was that only 3 of 10 top teachers had fewer than 11 years experience teaching U.S. History, while 8 of 10 bottom teachers had fewer than 11 years teaching U.S. History (Table 6).

More top teachers held advanced degrees in social studies or U.S. History (7 of 10 top teachers compared to 3 of 10 bottom teachers). There were two top teachers with national board certification and one nationally board certified bottom teacher. Table 6 shows the details of experience levels. In summary, top teachers tended to have more experience teaching U.S. History and were more likely to hold advanced degrees in their content area.

Table 6
Professional Factors of Study Teachers

		Residual	# of years	# of years teaching U.S.	Has an advanced	Nationally Board
Teacher	School	mean	teaching	History	degree	Certified
T1	S1	4.33	12	8	yes	no
T2	S15	3.65	16	16	yes	no
Т3	S11	3.65	26	21	yes	yes
T4	S6	3.20	31	30	yes	no
T5	S10	2.88	35	34	yes	no
Т6	S4	2.78	7	7	no	yes
T7	S3	2.69	29	20	yes	no
Т8	S9	2.67	24	17	no	no
Т9	S10	2.36	10	10	no	no
T10	S2	2.32	16	16	yes	no
B10	S7	0.50	8	8	no	no
В9	S5	0.46	10	8	no	no
B8	S8	0.29	30	10	yes	no
B7	S14	0.15	13	6	no	no
B6	S5	-0.37	30	13	no	no
B5	S8	-0.68	28	2	yes	yes
B4	S1	-1.08	6	6	yes	no
В3	S10	-1.22	6	6	no	no
B2	S15	-2.22	29	8	no	no
B1	S15	-2.53	37	22	no	no

## INSTRUCTIONAL PRACTICES

After analyzing the surveys, observations, and the focus-group interviews, results of the study were divided into four areas of comparison:

- intellectual demand,
- intellectual enrichment,
- time management, and
- student-centered versus teacher-centered classrooms.

# **Intellectual Demand: Academic Expectations**

Top teachers had high academic expectations for all students. The NCSS principle related to this finding is that social studies teaching is powerful when it is challenging. One aspect of challenging teaching is, "Teachers show interest in and respect for students' thinking and demand well-reasoned arguments rather than opinions voiced without adequate thought and commitment" (NCSS, 2002, p.13). Respect for students' thinking can come from a positive attitude of a student's ability and work ethnic. The teacher survey showed that overall, top teachers had more positive attitudes toward their students than did bottom teachers.

Table 7 shows the responses of top and bottom teachers to survey questions about their students. It gives the number of top and bottom teachers who gave positive responses, compared to those that gave negative responses. Notice that 43 out of 59 (73%) responses of top teachers were positive agreement, compared to 31 out of 60 (52%) for bottom teachers. Also note that no bottom teachers marked Strongly Agree for any item.

Table 7
Teacher Responses to Attitude Questions about Students

	Strongly Agree		Agree		Disagree		Strongly Disagree	
	Top	Bottom	Top	Bottom	Top	Bottom	Top	Bottom
1. My students work hard.	2	0	7	6	1	4	0	0
2. My students do their homework.	1	0	8	5	1	5	0	0
3. My students seek extra help from me.	3	0	3	5	3	4	1	1
4. My students set high standards for success.*	1	0	5	6	3	4	0	0
5. My students have strong prerequisite skills.	1	0	5	1	4	7	0	2
6. My students seek to understand the concepts of U.S. History.	1	0	6	8	3	1	0	1
Attitude Total	9	0	34	31	15	25	1	4

<sup>\*</sup> Note: One response was missing for this question

Another way to assess the attitude of the teachers was to calculate the number of positive responses per teacher for the six questions. Of the top teachers, 80% gave four or more positive responses out of six, compared to 50% of the bottom teachers. Table 8 gives the number of positive responses by teacher.

Table 8
Positive Attitude Responses by Teachers

Positive	Тор	Bottom	Тор	Bottom
responses	Teachers	Teachers	Cumulative %	Cumulative %
6 out of 6	3	0	30%	0%
5 out of 6	2	3	50%	30%
4 out of 6	3	2	80%	50%
3 out of 6	1	2	90%	70%
2 out of 6	0	1	90%	80%
1 out of 6	0	0	90%	80%
0 out of 6	1	2	100%	100%

Although in nine out of ten cases top teachers held positive attitudes toward their students and were observed exhibiting high intellectual demand, there was one top teacher who responded very negatively to the six student survey questions, yet who nevertheless maintained high academic standards for all students. There were also five bottom teachers who had mostly positive attitudes, yet did not demand academic excellence.

# **Intellectual Demand: Prerequisite Skills**

During the teacher focus-group interviews, both top and bottom teachers stated that students generally did not know how to read the U.S. History textbook or other supplementary materials. The teachers also voiced concern over the note-taking skills of their students. On the survey, six top teachers agreed with the statement, "My students have strong prerequisite skills", while nine bottom teachers disagreed with this statement. Follow-up focus-group interviews elucidated the difference between survey responses and interview responses. Top teachers believed that students had the ability to learn to read the history materials, and that they could teach them to do so. Bottom teachers believed that it was the student's responsibility to read, and they did not have time to teach reading. The same basic attitude was held about note taking.

Top teachers spent time early in the class discussing the organization of history texts. They assigned reading and quizzed students before discussing the reading. They partnered with parents to encourage the importance of taking the readings seriously. Top teachers provided a clear note-taking structure for students. This structure varied from teacher to teacher, but top teachers held all students accountable for their notes. One teacher was observed telling students to write in their "Presidents" section. The notes were organized in ways that held students responsible for all the history that they have studied, and so aided in preparation for cumulative questions.

The teaching of reading and note taking in history was a daily activity in the classes of top teachers, but missing from most of the classes of bottom teachers. In AP U.S. History, databased questions (DBQs) are part of the course expectations. One top teacher was observed sharing a teacher-written DBQ writing as a model for the students to follow. This teacher displayed confidence in the students' abilities to learn to write at a high level, but took the responsibility to model and thus teach this skill.

# **Intellectual Demand: Higher-Order Thinking**

Research indicates that more learning occurs when the instructional practice of asking students higher-order thinking questions is used. These are questions that require students to analyze their reading and to go beyond simply recalling facts (Redfield & Rousseau, 1981). The following are examples of higher-order questions:

- Why did the founding fathers set up the Electoral College?
- Why is President Roosevelt drawn so large in this cartoon?
- What role did heroes play in the 1920s?
- How did the image of a flapper represent the changing values and attitudes of young women in the 1920s?
- How did the Watergate scandal change American politics?

The following are examples of lower-order questions:

- Who was the first Chief Justice of the Supreme Court?
- When did the Civil War occur?
- What are the three branches of our government?
- What was one nickname of Henry Clay?
- What was the name of the book in which Henry David Thoreau wrote about his time alone in the woods?

The last two lower-order questions were extra-credit questions on a bottom teacher's quiz. The facts that lower-order questions are seeking can usually be found within the answers to higher-order questions.

Since top teachers held a more positive attitude concerning what students could be taught in their classes, it was no surprise that they were observed using higher-order questions about connections and themes. In top-teacher classrooms, all students were called upon by name to participate and were kept engaged throughout the class period. The teachers placed the acquisition of facts within a sense-making context. The use of political cartoons and short video clips was observed. All top teachers were observed using higher-order questions. Only two bottom teachers were observed using higher-order questions, and these two teachers did not question all students (some students were allowed to not participate). The other eight bottom teachers were observed using lower-order, fact-driven questions, and the amount of questioning was limited. There was much more teacher talk and much less student participation in bottom-teacher classes

One result from the survey may help explain why bottom teachers used mostly lower-level questioning and more teacher talk. When asked how planning time was spent, seven of ten bottom teachers responded that pacing was their first concern, while only one top teacher did so. The other top teachers chose concepts or strategies as their responses. If pacing equates to concern for covering all the material, then bottom teachers may have believed that they did not have time to let students participate and explore more thought-provoking questions.

In the book, *Classroom Instruction That Works* (Marzano, Pickering & Pollock, 2001), the instructional strategy of identifying similarities and differences was listed as the most effective of nine strategies that can positively affect student achievement. The top teachers of this study were observed using this strategy frequently. The following are examples of leading questions that help students identify similarities and differences by comparing, classifying, creating metaphors, or creating analogies (Marzano et al, 2001, p. 17):

- What is the difference between a colony and a protectorate?
- Which presidents were considered "conservative" and which were considered "liberal"?
- What were the successes and failures of Reconstruction?
- What attitudes of the 1920s are similar to attitudes in the 1960s?
- What analogies could be made between Lincoln's time as president and Kennedy's time?

## **Summary of Intellectual Demand**

Top teachers reported setting high academic expectations for all students in their classrooms. In most cases, the top teachers held positive attitudes concerning the ability of their students to learn how to be successful in U.S. History. These top teachers exhibited the characteristics of proactive teachers defined by Brophy and Good (1974). Top teachers were in control of their interactions with students. They had structured classes that maximized the achievement of students. The Brophy and Good categories "reactive" or "overactive" describe the bottom teachers. Student behavior controlled much of the interaction in the classroom. In the classrooms of overactive teachers, students are treated differently based on performance and behavior, and teachers are more likely to give up on students with poor performance or off-task behaviors. These overactive teacher behaviors were observed often in the classrooms of bottom teachers.

Most bottom teachers were observed using lower-level thinking questions and tasks predominately. Two bottom teachers who used higher-order questioning did not demand full ontask attention by all students for the entire period. Students who chose not to attempt the questions were allowed to abstain from participation. In contrast, top teachers tended to demand full attention of all students for the entire class period. Intellectual demand includes both the expectation of a high level of thinking and the expectation of focused attention to the thinking by all students. NCSS sets the standard for teachers in the statement "Teachers model seriousness of purpose and a thoughtful approach to inquiry" (2002, p. 13).

#### **Intellectual Enrichment**

Standard III of the NBPTS standards for social studies and history teachers is "Knowledge of Subject Matter" (NBPTS, 1998). This study found that top teachers had more than basic content knowledge. Top teachers in this study were found to possess the following behaviors associated with strong content knowledge:

- pursuit of continual learning as a professional,
- infusion of supplementary content information into the classroom,
- development of many of their own materials instead of relying solely on publisher-supplied materials, and
- use of efficient focused planning time with colleagues.

During observations of top teachers, all teachers referred to their outside reading and study of U.S. History. The joy of telling what they had read made it clear that these teachers viewed this reading as pleasure reading. One teacher said, "I teach history because I love to study and read about history. I am a history nerd."

The love of reading and studying history was also a characteristic of bottom teachers. Yet the surveys showed that five of the ten bottom teachers taught history courses that were not American history courses (e.g., world history). All of the top teachers taught only American history courses (U.S. History or other American history electives such as African-American history). The planning and preparation time for all top teachers was focused on events of the United States.

Table 9 gives the percentage of classes taught by teachers in the study that were American history courses. Note that the bottom teacher, B1, taught very little American history.

Table 9
Percentage of Classes Taught that Were Related to American History

	% of classes related to
Teacher	American history in 2006-07
T1	100%
T2	100%
T3	100%
T4	100%
T5	100%
T6	100%
T7	100%
T8	100%
T9	100%
T10	100%
B10	100%
B9	100%
B8	100%
B7	67%
B6	100%
B5	83%
B4	67%
B3	67%
B2	100%
B1	17%

Top teachers used their background knowledge to prepare student guides, graphic organizers, warm-up questions, and many other supplementary teaching aids. They did not rely solely on textbooks, handouts, and worksheets that were available from commercial vendors. One top teacher said, "The textbook is not the curriculum. No boring worksheets used in my class." This teacher had a very negative opinion of worksheets that were being used in the classrooms of some colleagues. Another top teacher was observed telling students, "I want you to get tomorrow's N&O (the local daily newspaper) insert on the 1898 Wilmington Race Riot for us to use."

Top U.S. History teachers reported that they planned with other history teachers, efficiently focusing the planning time around concepts and strategies. This desire to learn from peers was observed during the focus-group interviews. The top teachers were anxious to hear the strategies of their colleagues in the district. They discussed how they taught reading and note taking, included current events, and supported the classroom experience with out-of-class activities. The bottom teachers spent much of their focus-group time discussing the lack of time on the block schedule, unreasonable expectations of the curriculum, and their frustration that students cannot

read and write. Although top teachers shared many of the same concerns that bottom teachers had, they did not use their planning or meeting time to vent about these issues.

## **Summary of Intellectual Enrichment**

Students should be intellectually enriched in the classroom by both the teacher's knowledge of the subject matter and also by the teacher's knowledge of how to read and write in the content area. NCSS (1994) states:

Knowledge is not merely a fixed body of information transmitted for students to memorize. Teachers should not only expose their students to curricular content but should also provide them with opportunities to think and communicate in ways that will help students construct a working knowledge of such content (p. 4).

The top teachers in this study created a thoughtful classroom atmosphere in which teachers modeled reading and writing in U.S History by interacting with students concerning the answering of higher-order questions. Students were challenged to have substance behind their responses. The textbook was only one of many reference sources. Careful planning produced instructional tasks that stimulated student attention to reading and writing in order to participate in classroom discussion (Newmann, 1990a, 1990b, 1991).

# **Time Management**

Both top and bottom teachers expressed concern about block scheduling and how it provides less class time than the previously used full-year schedule (all WCPSS high schools are on a block schedule except one). While many bottom teachers struggled to maximize the block schedule time, top teachers exhibited stronger time management skills. They taught bell-to-bell using an invigorated delivery rate.

The main mode of delivery observed was a combination lecture/discussion method. The teacher survey, which was administered before the classroom observations were conducted, asked teachers to report the percentage of class time in an average five days of instruction that was spent on seven possible uses of class time. On the survey, lecture and whole-group discussion were separate categories. Top Teacher T2 responded 70% lecture and 10% class discussion in survey responses, yet was observed including students frequently throughout what was labeled lecture. Observations showed that lecture and discussion were combined in such a way that the survey question may not have produced reliable data; nonetheless, Table 10 shows the responses on use of time. Notice that the top two teachers responded in the survey that they used 75% and 80% of their class time on lecture/discussion.

Bottom teacher B1 reported spending 50% of class time in whole-group discussion. During the observation of an honors class, this teacher talked most of the time. Students were asked lower-level questions with short responses, and when they tried to discuss the Electoral College, the discussion was quickly ended. During the focus-group interview, this same teacher admitted that most of class time was spent in teacher talk. Teacher B1 said "I have to tell them what they need to know. They don't read and time is so short."

Three top teachers and five bottom teachers indicated time spent in other activities. The bottom teachers reported spending 30% and 20% on other activities, which both described as "individual seat work". Notice also that seven bottom teachers allocated time for projects, while only three top teachers did (reporting only 4-5%).

Table 10
Survey Results: Percentage of Time Spent on Instructional Methods in an Average Five Days

			Whole group	Lecture and			Small			
Teacher	School	Lecture	discussion	Discussion	Technology	Projects	Group	Partner	Testing	Other
		%	%	%	%	%	%	%	%	%
T1	S1	45	30	75	2	5	5	3	10	0
T2	S15	70	10	80	0	0	0	0	20	0
Т3	S11	25	30	55	5	0	25	0	15	0
T4	S6	10	50	60	5	5	0	10	10	10
T5	S10	30	30	60	0	0	15	0	20	5
Т6	S4	40	10	50	10	0	10	10	10	10
T7	S3	25	60	85	0	0	10	0	5	0
Т8	S9	70	5	75	0	0	5	5	15	0
Т9	S10	15	15	30	1	4	30	25	10	0
T10	S2	30	15	45	0	0	20	15	20	0
B10	S7	35	20	55	5	10	15	0	15	0
B9	S5	10	20	30	20	20	5	5	20	0
B8	S8	10	10	20	20	10	20	10	5	15
B7	S14	40	20	60	0	5	10	10	15	0
B6	S5	5	10	15	5	5	15	20	10	30
B5	S8	15	15	30	15	0	15	10	25	15
B4	S1	25	25	50	0	0	10	20	10	5
В3	S10	20	40	60	0	0	30	0	10	0
B2	S15	5	55	60	0	1	2	2	15	20
B1	S15	20	50	70	10	5	5	5	5	0

## **Summary of Time Management**

Top teachers made the most of every minute of class time. They reflected the NBPTS core proposition number 3, "Teachers are responsible for managing and monitoring student learning," which includes "to make the most effective use of time." (NBPTS, 1989, p. 3). Top teachers engaged students in invigorating activities that included teacher and student talk. Although top Teacher 2 believed that 70% of class time was spent in lecture, the lecture was so captivating that there were not enough desks to seat all the students registered for the class. One student brought a lawn chair so he would have a seat. Even during the last period of the day, students were "on the edge of their seats", and attentive so they would not miss a word and be prepared to participate.

In contrast, observations of bottom teachers' classes found many students off-task and not engaged. Students were observed sleeping, yawning, and talking off task. Some students tried to participate, but were ignored as teachers continued to talk. Students spent time waiting for other students to finish tasks, listening to one student being chastised, listening to teacher complaints of student behavior, and waiting for a teacher to help a student returning from an absence.

Top teachers carefully controlled all student activities. They did not allow students to spend time on noncurricular activities or to spend excessive time on one aspect of the curriculum. Projects were used sparingly, if at all, by top teachers.

#### **Student-Centered Classrooms**

NBPTS (NBPTS, 1989) Core Proposition 1 is "Teachers are committed to students and their learning."

Accomplished teachers are dedicated to making knowledge accessible to all students. They act on the belief that all students can learn. They treat students equitably, recognizing the individual differences that distinguish one student from another and taking account of these differences in their practice. They adjust their practice based on observation and knowledge of their students' interests, abilities, skills, knowledge, family circumstances, and peer relationships (p. 3).

Top teachers in this study planned their classrooms around student needs, not teacher needs.

## Student-Centered Classrooms - Connections

The top teachers were observed making history connections for students. They made connections to current events, to their lives and their students' lives, and to themes across time into the present. They also facilitated the use of students' imaginations to connect into historical settings.

Several examples of connections were given in interviews and classroom observations. One teacher had students report on newspaper articles. Another teacher connected Seward's Folly to "Ms [teacher's name]'s Folly in class yesterday". A teacher was observed posing the question "What would happen if you \_\_\_\_\_\_?", while another teacher explained "safety valve" in relation to a shared high school prom experience. An example of connecting a theme across time was observed when a teacher connected John Brown to Poncho Villa to Osama bin Laden (all individual fugitives that were or are hard to catch).

# Student-Centered Classrooms: Atmosphere and Student Affirmation

Top teachers created an atmosphere of mutual respect in which inquiry, wrong answers, personal challenge, collaboration, and disequilibrium provided opportunities for learning for all students. Top teachers were enthusiastic and presented a genuine feeling of joy about being in the classroom with their students. Top teachers were heard making student affirming comments:

- You are the greatest kids.
- I am so proud of what my students can do.
- My job is to connect the dots, because you have so much knowledge already.
- I know that you know this.
- You are so smart.
- The "jeopardy" history questions are too easy for you.

Students also made affirming comments in top teacher classes. One student was heard saying, "We did so good on this!"

In contrast, some bottom teachers were observed making teacher-centered comments. Some of the teachers exhibited more concern about how they looked and felt than how students felt. Student behaviors were taken as personal affronts and direct challenges to the teacher's authority. Several bottom teachers were observed frequently challenging student motives and generally being disrespectful of student feelings. Anger and frustration were observed throughout all of one 90-minute class period. Examples of teacher-centered comments were recorded:

- Listen, this is like pulling teeth.
- I don't know how else to teach it.
- I gave you a handout.
- [Student's name], what did you do last night?
- Put that dang candy up.
- I need to retire.
- I'm so tired of this job that I can't take it much longer.

## **Summary of Student-Centered Classrooms**

The term student-centered classrooms is used to identify classrooms in which teachers spend all their planning time and in-class time focused on what is best for the academic development of all their students. It does not refer to classrooms where students "run the show"; in fact, the top teachers of this study very much ran the show.

During the focus-group interviews, top teachers spent time sharing instructional strategies, while bottom teachers spent most of the time complaining about their lack of time. Bottom teachers also placed more blame on their students' lack of prerequisite skills and motivation. Top teachers discussed ways to teach reading and note taking. They also shared ways to motivate all students to want to learn with in-class and out-of-class enrichment activities.

Teachers at the school with the lowest 2005-06 U.S. History effectiveness index exhibited a defeatist attitude. They talked of what they had to do to prepare for the EOC exam as if they had no control of their classrooms. In contrast, teachers at the school with the highest 2005-06 effectiveness index were upbeat and very positive. They expressed joy, excitement, and pride about their students.

#### SUMMARY OF CLASSROOM OBSERVATIONS

Table 11 summarizes the observations of the 10 top and 10 bottom teachers studied. The number of teachers observed with behaviors in each of the four comparison areas is quantified. Each top or bottom teacher was observed by one of the two principal investigators (both are trained in supervisory observations). The observations were discussed and a judgment was made concerning each teacher's behaviors in the four comparison areas. No bottom teachers were judged to have the behaviors of the first area (intellectual demand). All bottom teachers were lacking in one or more of these areas, whereas top teachers exhibited strengths in all four.

Table 11 Summary of Classroom Observations

Comparison Areas	Key Indicators	Top Teachers	Bottom Teachers
A. Intellectual Demand	Teachers expect all students to participate as they learn to read, take and organize notes, make connections, analyze, and respond to higher-order thinking skill questions. The acquisition of facts happens within a sense-making context. Teachers question individual students.	10 out of 10	0 out of 10
B. Intellectual Enrichment	<ul> <li>Teachers:</li> <li>have basic content knowledge and show evidence of continued learning as a professional</li> <li>infuse supplementary content information into the classroom</li> <li>develop many of their own materials rather than relying solely on publisher-supplied materials</li> <li>have efficient focused planning times with colleagues</li> </ul>	10 out of 10	4 out of 10
C. Time Management	Teachers teach bell-to-bell, use an invigorated delivery rate, and use an effective lecture/discussion method.	9 out of 10	2 out of 10
D. Student- Centered Classrooms	Teachers connect the content to current events and student's lives, teach students to be historians, and build positive relationships with students.	10 out of 10	5 out of 10

## **CONCLUSIONS**

The main goals of this research study were to collect system-specific data to help teachers and district leadership understand current United States History practices, identify and share best instructional practices in U.S. History, continue to build a series of studies that identify the role of teachers and other system staff/departments in the school improvement process, and to identify the practices of effective improvement. In 2006-07, 74.2% of WCPSS U.S. History students scored proficient on the North Carolina EOC exam. This was an improvement from the 69.6% proficiency rate of 2005-06. Yet the achievement gap between White students and Black/African American students was 36 percentage points (85.5%, compared to 49.3%). Of the 18 high schools in the study, three had proficiency rates below the state average of 56.8% in 2005-06. There are far too many students below proficiency and the gap is too wide.

The WCPSS effectiveness indices for schools and the average residual scores for teachers were used to identify highly effective teachers in order to document best instructional practices in U.S. History. Top teachers of this study shared a love for studying history and the desire to foster both knowledge and understanding of history in their students, and also an appreciation of history. They used instructional strategies that taught their students how to become lifelong historians.

Top and bottom teachers agreed on three main barriers to success in their classes:

- poor student reading skills,
- poor student note-taking skills, and
- the block schedule.

Top teachers had sought and found solutions to these problems, while bottom teachers spent their time discussing how they were discouraged by these barriers. Top teachers taught their students reading and note-taking skills. They focused all class time on the essential goals of the Standard Course of Study, supplementing it with out-of-class enrichments. They taught bell-to-bell, using an invigorated delivery rate. The predominant delivery method was a combination of lecture and discussion.

Top teachers held basic content knowledge and showed evidence of continued learning as professionals. Their study aided them in connecting the content to current events and to their students' lives. They were able to place the acquisition of facts within a sense-making context and also made connections across historical periods. They infused supplementary content information into the classroom and developed many of their own materials, rather than relying solely on publisher-supplied materials. They had focused planning times with colleagues.

Top teachers built positive relationships with their students. Their sense of humor promoted a fun atmosphere; yet all students were expected to participate, and there were high expectations for all students. Top teachers used directed higher-order thinking skill questions with all students.

It can be concluded that teachers with higher average WCPSS residuals do have a more complete package of instructional strategies than do their peers with lower residual averages. The three studies, within this body of work (biology, Algebra I, and now U.S. History), have all found clear evidence of excellence in teaching among top teachers. Better performance by students on EOC exams is strongly correlated with better teaching. These top teachers do not focus on the EOC exam; they focus on the Standard Course of Study and helping students master it at the highest level possible, not just at the minimum level needed for the exam.

#### DISCUSSION AND IMPLICATIONS

Green (2005) in his book *Expectations: How Teacher Expectations Can Increase Student Achievement and Assist in Closing the Achievement Gap* discusses at length what research says about the correlation between teacher expectations and student achievement. The contrast between observations of the top and bottom teachers of this study put a face on the main point of Green's book. Top teachers in this study expected **all** students to perform at a high level. During observations it was clear that students understood this expectation and had made it their own.

In contrast, bottom teachers had classrooms in which low expectations were the norm. Memorizing facts was good enough. Answering low-level questions was the work of the students, while the teacher might lecture on the overall meaning. The purpose of the work was to be able to answer EOC questions. If a student could not read or take notes well, the teachers' solutions were to do more teacher talking. Students could choose to sleep or not participate. Teachers complained that there was no time because of the block schedule.

Observations clarified that the attitude that a teacher holds is the attitude that the students adopt. It is also clear that the history students of WCPSS can achieve more than some teachers expect of them. The interviews and observations showed that most of the bottom teachers liked students and thought they were doing their best to help them succeed. They all reported on the survey that they viewed themselves as successful. It is hoped that sharing the success and attitude of top teachers will help all teachers catch a vision of what is possible.

The following recommendations for improvement are made to all WCPSS U.S. History teachers:

- Study the standard course of study and EOC testing program.
- Plan with other teachers.
- Understand and implement Marzano strategies.
- Use and/or develop a course plan for U.S. History.
- Study American history to deepen content knowledge and enrich classroom instruction.
- Teach reading and note taking.
- Hold high, rigorous expectations for **all** students.

The following recommendations are made to school-based leadership:

- Develop a school plan that aligns to the standard course of study, emphasizing rigor and relevance.
- Support and expect meaningful common planning for teachers.
- Share results data with teachers including effectiveness rosters and indices.
- Develop a scheduling plan that maintains stability in American history.
- Support a school culture that promotes high, rigorous expectations for all students.

The following recommendations are made to district leadership:

- Make observations of effective schools and teachers that can be shared districtwide.
- Provide workshops on implementing Marzano strategies.
- Support school wide improvement efforts based on top school models.
- Support teacher improvement efforts.
- Provide data to teachers and schools on their effectiveness.

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