The word “research” often conjures up mental images of scientists in white coats, sterile lab tables and rows of test tubes. My Writing 20 Class, Writing with Durham, challenged my perceptions of what constitutes research. In this service-learning class we studied the interactions between race, ethnicity, social class and the educational system while volunteering weekly at a local middle school. We also read about and discussed sociological research methods in preparation for our final independent research paper.

Entering this class, I wondered what I had gotten myself into. As an engineering major, I am much more comfortable with numbers and statistics than qualitative observations and journaling. But our class discussions about the impact of socio-economic class on education and my experiences volunteering with local students really caught my interest. Halfway through the semester it was time to choose a topic for my final paper. I decided to research standardized testing, which allowed me to combine qualitative research with hard numbers and data.

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### Introduction

A demand for higher standards and increased accountability in the American public school system has led to a national increase in high-stakes testing (Amrein & Berliner, 2003). This debate received national attention with the passing of the No Child Left Behind Act (NCLBA) in 2001, which mandates annual testing of all students in grades 3-8. The American Educational Research Association describes high-stakes testing as follows: “Certain uses of achievement test results are termed ‘high stakes’ if they carry serious consequences for students or educators,” (Marchant, 2004, p. 2). These consequences include school funding, student graduation, scholarship opportunities and teacher and school reviews (Marchant, 2004).

The state of North Carolina has an intensive testing program called the ABCs of Public Education. This program began in the 1996-7 school year as the state’s first school-level accountability system. The program has undergone several major changes since its conception, the most important being the incorporation of the NCLBA in 2002. It currently mandates at least one standardized test per year for all students in grades three through eight (North Carolina Public Schools [NCPS], 2008a); these exams are called End of Grade (EOG) exams. The scores from these tests hold consequences for students, teachers, schools and school districts. Students must pass a series of exams before they can graduate high school (NCPS, 2008a), and schools are ranked based on their overall test scores. The rankings vary from Priority School, which is the lowest, to School of Excellence and Honor School of Excellence, the two highest rankings. The NCLBA also ranks schools on a separate scale according to their EOG test performance. There are incentives for schools that do well including monetary bonuses for teachers of up to $1,500 (NCPS, 2008a). Schools with consistently low test scores or low improvement rates face serious repercussions from both the state and national government, including the forced provision of free tutoring, transportation to other schools and the possibility of a complete restructuring (NCPS, 2008b). These and other consequences are what identify the ABC program as a high-stakes testing program. However, the effect of the ABCs on the North Carolina education system has not been studied closely. Instead it has simply been accepted that an increase in testing scores is equivalent to an improvement in educational quality. Research shows, however, that high-stakes tests do more than measure how much children learn—they can affect school curriculums, students’ self esteem and how much time is spent teaching test taking skills.
This paper examines the impact of high-stakes testing on North Carolina public schools by studying its effect on school organization and management. A review of existing literature illustrates how the current discussion focuses on the influence of high-stakes testing on individual students and teachers. However, through surveys and interviews, my own research finds that high-stakes testing has a broader impact, affecting school curriculums and programs, teaching methods and overall school management.

Literature Review

High-stakes testing impacts both students and teachers. North Carolina is one of many states that require students to pass a series of tests before receiving a high school diploma (Achieve Inc., 2008). The state also requires students to pass EOG tests before progressing to the next grade. One national study found that students in the bottom fifth of their grade at schools in states with high-stakes testing were 25% more likely to drop out of high school than students who did not have to take high stakes tests (Jacob, 2001). Teachers in numerous studies noted that their students seem more stressed, angry, frustrated or disillusioned by increased high-stakes testing (Amrein & Berliner, 2003; Cimbricz, 2002; Paris & Urdan, 2000).

Research shows that many teachers dislike high-stakes tests. According to one study, “teachers believe there are too many tests[,] the results are not useful to teachers and are misunderstood by parents and the public” (Marchant 2004, p. 4). Despite this, the high stakes associated with standardized testing force teachers to change their teaching strategies to increase student test scores (Cimbricz, 2002; Marchant, 2004; Paris & Urdan, 2000). Teachers are more likely to use instructional approaches and materials that resemble testing and to increase time spent on test preparation (Marchant, 2004). They are also more likely to neglect topics not covered by tests and avoid innovative teaching methods (Cimbricz, 2002). As the stakes riding on standardized tests increase, so does the pressure felt by teachers, many of whom report feeling stressed and frustrated (Barksdale-Ladd & Thomas, 2000).

Despite the significant amount of research conducted on the effects of high-stakes testing, the broader impact of testing on the organization and administration of schools has been neglected. My research project addresses
**Methodology**

I used state-wide testing data to identify schools throughout North Carolina that were succeeding and schools that were struggling to meet standardized test and growth expectations. These data, available on the North Carolina Public School database, are organized by grade, school, race and economic status and also contain information on school size, teacher-to-student ratios and overall rankings within the ABC system. In order to compare succeeding and struggling schools, I used the database to identify schools labeled as Schools of Excellence by the ABCs program and schools labeled as Priority Schools.

To understand the impact of high-stakes testing on schools, I surveyed and interviewed several seventh grade Language Arts teachers, chosen from identified schools. Teachers are the link between school administration and student education; they must implement new school policies and programs within their individual classrooms. And, as the adults who deal most closely with students, they are likely to have the most insight to the effect of changes on students’ education. I chose to work specifically with seventh grade English teachers for several reasons. First, English teachers have to administer an exam in Reading Comprehension to their students, so they have experience with standardized testing. Second, seventh graders have been taking EOG exams since third grade, so most students have years of experience with testing. Therefore, by using seventh graders, inexperience would not be a variable affecting my results. Third, I already had a direct relationship with one seventh grade teacher, Ms. Bradby of the Carter School in Durham, NC, and I wanted to be able to use her experiences as a resource for this project.

I emailed interview questions to teachers throughout North Carolina (Appendix A) and received responses from two teachers. One teacher works at Lakeshore Middle in Mooresville, NC, which is ranked as an Honor School of Excellence and the other teaches at Davis Drive in Cary, NC, a School of Excellence. I also interviewed Ms. Bradby, the seventh grade Language Arts teacher at the Carter School in Durham, NC, which is ranked as a Priority school. Although Carter is a charter school, charter schools in North Carolina must take state mandated tests and meet state accountability standards (Charter School Powerpoint), and therefore face the same high stakes as regular public schools.

One shortcoming with my method is that the study uses a very small sample of the teacher population in North Carolina. Therefore my analysis is not a comprehensive view of all the schools in North Carolina. However, by focusing on several specific schools, I was able to examine each individual school carefully, analyzing its funding, testing success, student background and history. This provided context for the teachers’ opinions, which helped me develop a more holistic analysis of their responses.

After receiving the survey responses and completing my interview, I analyzed the data by looking for larger trends within the responses, as well as links between schools’ testing scores and the school operations and practices. Special attention was paid to any differences that existed between succeeding and struggling schools.

**Results**

My results are from three very different schools; the Carter School in Durham, Davis Drive Middle in Cary and Lakeshore Middle School in Mooresville. Table 1 compares the

<table>
<thead>
<tr>
<th>School Designation</th>
<th>School size (number of students)</th>
<th>% Economically disadvantaged students</th>
<th>Percentage of students reading at or above grade level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carter Community Charter</td>
<td>Priority School</td>
<td>163</td>
<td>86</td>
</tr>
<tr>
<td>Davis Drive Middle School</td>
<td>School of Excellence</td>
<td>1,091</td>
<td>13.2</td>
</tr>
<tr>
<td>Lakeshore Middle School</td>
<td>Honor School of Excellence</td>
<td>688</td>
<td>17</td>
</tr>
</tbody>
</table>

*All data is for the 2006-7 school year (NCPS, 2007a; NCPS, 2007b; NCPS, 2007c)
important characteristics of each school. Of these schools, Lakeshore and Davis Drive are both succeeding on statewide standardized tests; they are ranked high within the ABCs program and have a high percentage of students reading at grade level. The Carter School, however, is struggling; it is a low ranked school and has a comparatively low percentage of students reading at grade level. All three schools differ from one another in terms of size and the economic makeup of the student body. Davis Drive is the largest of the three schools with over 1,000 students, followed by Lakeshore Middle and then Carter. However, 86% of students at Carter are at an economic disadvantage, compared to 17% at Lakeshore and only 13% at Davis Drive. In addition to these statistical differences, each school has made unique changes in an attempt to improve testing scores.

**Carter School** The Carter School is focused on improving its testing scores so that it will no longer be a Priority School. This focus is illustrated by Carter’s school goals, all of which revolve around standardized testing. These goals, as listed on the Carter school website, are as follows:

To become an Honor School of Excellence by 2010...To achieve Average Yearly Progress (AYP) annually as determined by No Child Left Behind legislation...To insure that all students are achieving at or above grade level, and showing continuous progress, by using standardized instruments to monitor children’s progress (“Carter Community School,” 2008).

Carter has made several significant changes in order to achieve these goals. In the 2008-9 school year it switched to block scheduling, where students have math and reading class for two hours every other day instead of a single hour every day. The longer class periods will give teachers more concentrated class time to teach topics covered by the EOGs, theoretically raising test scores. Changes in individual classes include switching to more skill- and test-oriented activities, like vocabulary worksheets. Tanya Bradby, the 7th grade English teacher, said that she focuses on multiple choice questions instead of other teaching methods, like open response questions and creative projects. These changes are all driven by the Carter School’s need to improve their rankings within the ABCs, and they illustrate how high-stakes testing is directly impacting student education.

One of the largest changes at Carter is the implementation of the MAP (Measure of Academic Progress) program, an assessment program provided by an outside company. The Carter School began using this program after MAP successfully raised standardized testing scores in other charter schools. Students at the Carter school take the MAP tests about halfway through the school year. Teachers use the test results and guidelines provided by the MAP program to adapt their curriculum to each student’s needs. In April, students are split into groups based on their MAP testing scores to study for the EOG exams, which take place in May. Students stop learning new material and focus exclusively on test preparation. Although this method is not popular with many teachers, including Ms. Bradby, she noted that it has been effective in raising test scores and that the MAP program has really helped the teachers tailor their curriculum to each student. The implementation of this program will hopefully help the Carter School achieve its goals and improve in the state rankings.

**Davis Drive Middle** Davis Drive Middle has had consistently high test scores, and it continues to put a strong emphasis on standardized testing. Ginnie Paisie, a seventh grade Language Arts teacher at Davis Drive, said, “I think we brag on our test success; all schools want that ‘honors’ or ‘distinction’ label...our expectations revolve around test scores, as much as we may hear administrators preach otherwise.” Although the school has been successful within the ABCs program, Ms. Paisie still feels pressure for her students to score well on high-stakes tests. This focus on test scores has led Davis Drive to institute a system of practice standardized tests called “Blue Diamond” assessments. Blue Diamond Information Solutions is an outside company hired by the Wake County school system in October 2007 which scores assessments and generates reports for teachers and schools (Wake County Public School System, 2007). According to Paisie, students use graphs to track their individual Blue Diamond assessment results, and teachers do the same on a “Data Wall” in their classrooms.

Blue Diamond assessments are just one example of how Davis Drive is putting increased emphasis on gathering data about student performance. This emphasis on data and quantifiable growth is changing how classes at Davis Drive are being taught. More emphasis is placed on following a standardized curriculum instead of adapting the classroom activities to fit student interests or current events. “Standardized tests cause us to emphasize data and ignore those ‘teachable moments’ we were told about in methods classes—they take time away from what’s being measured and quantified,” explained Paisie. The pressure of high-stakes tests has caused a noticeable, school wide shift in teaching methods.

**Lakeshore Middle** High-stakes testing has influenced teaching and organization at Lakeshore Middle as well. Like Davis Drive and Carter, Lakeshore Middle has also hired an external educational company. This firm, called “Castle Learning Online”
(“Lakeshore,” 2008), provides an online program that helps schools raise their standardized testing scores. Its website says that “Castle Learning Online supports classroom instruction through content-related review assignments, practice sessions and benchmark testing” (“Castle,” 2008). Teachers are able to track their class’s progress as students use the online program to review and take online exams.

One teacher at Lakeshore Middle, who wanted to remain anonymous, said that Lakeshore Middle has also changed its teaching methods in order to raise test scores. “We focus more on individual skills that are required to do well on the EOG (i.e., predicting, inferencing), as well as do EOG preparation regularly before the test in May,” he explained. This follows a national trend identified in several research papers, where teachers spend more time on test preparation and use more tools that resemble standardized testing (Paris & Urdan, 2000; Cimbricz, 2002; Marchant, 2004).

Analysis

The results from this study show that Carter, Davis Drive and Lakeshore Middle are all focused on either maintaining or improving standardized test scores. All three of the teachers I interviewed have made changes to their teaching methods. Mrs. Bradby from Carter noted that she is using more skill- and test-oriented activities, and Ms. Paisie commented on how her classroom activities are more quantifiable, so that she can gather data on student achievement. These changes are consistent with several large studies examining the effects of high-stakes testing in individual classrooms (Cimbricz, 2002; Marchant, 2004; Paris & Urdan, 2000).

My interviews also found that teachers are focusing specifically on material covered by standardized tests. According to Tanya Bradby, “If it’s not tested, it’s not going to be taught.” This has the positive effect of making sure that every student throughout the state is following the North Carolina Standard Course of Study, which is the statewide curriculum. “Overall, I think it has been a positive thing... The tests ensure that students KNOW what they NEED to know,” explained the teacher from Lakeshore Middle. However, it also limits the time teachers can spend exploring current events or ideas that are not in the curriculum. In the words of Ms. Paisie, “On a negative side, we are limited as far as bringing in, say, news stories of human interest or that offer a good character education lesson.” These results show that the high educational stakes in North Carolina cause teachers to focus on material covered by the tests, often at the expense of other topics. This correlates with numerous other studies, which have found that high stakes tests can cause teachers to narrow their curriculum (Cimbricz, 2002; Marchant, 2004).

The results from my study also seem to point to a separate, equally important conclusion—that a change in teaching practices is often accompanied, and possibly caused by, broader administrative changes and the institution of new programs. The MAP program, Blue Diamond Assessments and Castle Learning are all examples of this change. These programs make testing, originally an evaluation of what students have learned, its own teaching method. Although they may increase test scores, programs like Blue Diamond and Castle Learning may also stifle students’ creativity and critical thinking. They might also exclude students who have a different learning style. Standardized tests do not leave any room for discussion or different points of view; instead, they turn learning into a matter of right and wrong. This shift away from innovative teaching methods towards a more test-like structure could potentially be occurring in entire schools and school districts, impacting thousands of students.

Another finding of this study is that there are very few qualitative differences between the Carter School, which is struggling to meet state standards, and Davis Drive and Lakeshore Middle, which are succeeding. All three schools are placing an increased emphasis on test scores, using outside resources and companies, and focusing on material covered by EOG exams. It seems as though administrative practices relating to testing are similar at the three schools. However, this study did identify several other possible reasons why Carter’s test scores are so much lower than Davis Drive’s and Lakeshore Middle’s. Although Carter faces the same consequences through the ABCs and NCLB as other schools, it is not answerable to a school district or school board because it is a charter school. Ms. Bradby noted that this gives the Carter School more freedom to do activities unrelated to testing like field trips, which she felt are integral to student education. She also said that many students who struggle in the public schools choose to switch to Carter, including students who would have stayed back a year because of poor test scores. Carter also has a very different student body from the other two schools, with many economically disadvantaged students. These factors could all contribute to Carter’s low test scores, but they are outside the focus of this study and require additional research.

Previous research indicated that high-stakes testing was having a strong affect on individual students and teachers; my research shows that it is potentially influencing entire schools and school districts throughout North Carolina.
Conclusions

The high stakes associated with North Carolina’s standardized tests have had a noticeable influence on the three schools studied in this paper. Each school has implemented new programs to raise test scores and all three teachers noted increased pressure for their students to score well. Previous research indicated that high-stakes testing was having a strong effect on individual students and teachers; my research shows that it is potentially influencing entire schools and school districts throughout North Carolina. These changes are almost certainly affecting students’ education. Are these new programs actually increasing test scores, and if so, are the increased scores really indicative of better educated students? The use of tests as a teaching method, a narrowing of the curriculum and a decrease in the teaching of critical thinking skills are possible negative effects of high-stakes testing and must be studied further.

This study has also identified other factors that may influence standardized test scores, including students’ economic class and the financial situation of individual schools and districts. It is important to understand how social and economic factors could affect testing because of the high stakes riding on these scores. Factors outside of students’ control should not limit their future opportunities.

Although high-stakes testing may increase student and teacher accountability and ensure that students are learning a standardized curriculum, the negative effects of testing cannot be overlooked. The prevalence of high-stakes testing has increased nationwide; however, policy makers need to examine carefully its pros and cons before accepting it as the solution to our educational challenges.

References


Appendix A – Interview Questions

1. Name?
2. Is enabling students to succeed on standardized tests an important part of your job?
3. Have you adapted/changed your teaching strategies to improve testing scores? If so, how?
4. Do you feel like the importance of standardized testing is changing? Is it increasing or decreasing?
5. How do you feel the passing of the No Child Left Behind act has influenced your school?
6. How do you think students feel about standardized tests?
7. Do you feel that standardized tests have had an impact on student education in your school?