

# Current Issues in Education 

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# State Assessments: Does a Charter School Truly Demonstrate Higher Proficiency than its Public Counterpart? 

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#### Abstract

This project compared annual mandated assessment results for an urban charter school, two comparable urban schools and the encompassing urban district. Scores in grades three through eight in the target school were analyzed to determine the percentage of students scoring at proficiency levels three and four (scores of one and two are considered failing). These scores were then compared to the surrounding district as well as two other schools with similar demographics using a Z-test for estimation of a proportion. The results indicated although the number of students who performed at proficiency in the target school seemed to be higher, once corrected for the disparity in population size, these students perform the same, or worse than, students in comparable schools. Further, the scores are more inconsistent between grades in the target school than the scores in the lower performing schools. Suggestions for remediating the inconsistency and addressing the problems for consistently low percentage of proficiency scores are provided.


Keywords: charter schools, mandated assessments, proficiency scores

This joint research project was an outcome of a professional development school (PDS) relationship between an urban K-8 charter school and a private Jesuit college. Looking at student results on three years of language arts and math assessments, both partners noted a declining trend in proficiency scores, specifically in the middle school grades. This prompted us to further inquire if students in the charter school were performing as well or better than students in the surrounding district and comparable schools. Anticipating a large increase in students from the district the following school year, we wanted to know if the charter school was getting better results on state assessments. If so, we planned to design and provide some Tier 2 interventions for the students who would be entering the school from the district. If not, we wanted to determine which grades were not passing the assessments and identify instructional practices to
implement so the majority of students would pass at each grade level.

Mandated Assessments and Outcomes-based Curriculum
Over two decades ago, the National Commission on Excellence in Education declared our country as a "nation at risk" (United States Department of Education, 1983). The report cited America's students were not meeting minimum standards to lead productive lives in today's competitive world, nor were they adequately prepared for college academia requirements. In response to these findings, former President George Bush signed into action the Elementary and Secondary Education act, or NCLB as it is more commonly known (United States Department of Education, 2001). NCLB was designed to increase accountability for student learning, close the achievement gap between minority, disadvantaged and at-
risk students, and establish mandatory annual testing of all students. Additionally, the use of evidence based teaching practices for writing, reading, and mathematics are now required in schools. While these outcomes are primarily focused at the classroom level, NCLB also impacts policies at a school-wide level. Schools who fail to meet Adequate Yearly Progress (AYP) targets may have to alter curriculum, change teaching materials, or restructure school days and staff. Under NCLB, all schools are required to meet AYP goals, not just Title I schools as in the past. Additionally, the AYP targets for proficiency have become more stringent.

Despite these new accountability mandates, students in the United States continue to perform poorly on both reading and mathematics assessments. According to results from the 2009 National Assessment of Educational Progress (NAEP), only 32 and 33 percent of our nation's 8 th graders obtain proficiency in reading and mathematics tasks, respectively (United States Department of Education Institute of Education and Sciences, 2009). In 2009, according to New York's English Language Arts assessments 68.62 percent of New York's 8th graders were proficient (New York State Education Department of Information and Reporting services, 2009). This is a stark contrast to New York's 33 percent of 8th graders students' performance on the NAEP. In response, the New York State Education Department released a 2010 memo citing the standard
with which they had evaluated students' performance levels was set too low. The memo quoted, Regents Chancellor Merryl H. Tisch (2010) as saying:

For the past several years, we have seen more and more students scoring 'proficient' or better on our state tests. At the same time, however, their performance on the NAEP exam - the gold standard in testing - has remained essentially flat. We haven't been testing the right things in the right ways. 'Proficiency' on our exams has to mean something real; no good purpose is served when we say that a child is proficient when that child is not. (para.1)

In response, New York State raised the 'cut scores', requiring higher scaled scores to be considered proficient (Table 1). Faced with the inevitability that the new "cut" scores would result in less students scoring at proficiency, school leadership teams examined previous assessment data with a new lens. The crucial question became whether students who previously scored at proficiency continue at proficiency with the adjusted 'cut' scores? Schools who were slightly above "in need of improvement" could now find themselves faced with the threat of acquiring that status. Additionally, charter schools, already under the scrutiny of a trustee board, now had to consider how this new standard could affect their charter renewal.

Table 1
Scale Score Comparison for the ELA Assessment 08/09-09/10

|  | Level 1 | Level 2 | Level 3 | Level 4 |
| :--- | :---: | :---: | :---: | :---: |
|  | - |  |  |  |
| Grade 3 | $475-475$ | $616-643$ | $650-662$ | $720-694$ |
| Grade 4 | $430-430$ | $612-637$ | $650-668$ | $716-720$ |
| Grade 5 | $495-495$ | $608-647$ | $650-666$ | $711-700$ |
| Grade 6 | $480-480$ | $598-644$ | $650-662$ | $696-694$ |
| Grade 7 | $470-470$ | $600-642$ | $650-664$ | $705-698$ |
| Grade 8 | $430-430$ | $602-627$ | $650-659$ | $715-669$ |

## The Rise of Charter Schools

In the wake of widespread dissatisfaction with the perceived failures of this nation's public schools (A Nation at Risk, 1983) and public posting of standardized assessment scores, attention turned to a major overhaul of America's schools. Emphasis was placed on school choice and autonomy, spurring the rapid growth of charter schools. Charter schools are public schools that are free from many of the regulations applied to traditional public school yet are held accountable for student performances. The 'charter' itself is an outcome based contract in essence that details the schools mission, program, goals, assessment and student population. In theory they are autonomous with a wide control over their own curriculum, type of instruction, budget, and internal structure (Finn, 2000). These schools are paid for with tax dollars and must be open to any student in the district. The 'stakeholders' who approve a schools charter can review, monitor and audit progress, hence some would argue charter schools have a 'double' accountability.

The charter movement became a controversial catalyst for school reform as new schools with private ownership decreed they had a better way to educate America's students. Currently in America over 40 states have enacted charter laws with a recent estimate of well over a million children being served in charter schools (Center for Educational Reform, 2012). In the city of Buffalo, New York as of 2013 there are fourteen charter schools (Buffalo Public Schools, 2013) serving over fifteen percent of eligible school age children. Further, the average waiting time for the high-performing charter schools in Buffalo is three years (Buffalo Public Schools, 2013).

## Charter versus Public: Differing Perspectives on Student Achievement

Advocates of charter schools have long argued that they are an efficient and effective alternative for children who reside in predominately low income areas. Proponents believe that charter schools have the opportunity to provide innovative and 'cutting edge' educational practices, being freed from the bureaucracy of public education. This debate has ensured for many years and in 2004, the American federation of teachers (a skeptic if not opponent) issued a report that found that district public schools outperformed charter schools nationally (Nelson, Rosenberg, \& Van Meter, 2004). Following this, a group of education reformers publically denounced the report, citing design errors and sloppy data analysis (NY Times, 2004). In response, The United States Department of Education conducted its own study and concluded that students in public schools had overall better achievement in fourth grade reading and mathematics (USDE, 2006), for those charter schools who were unaffiliated with public school districts. Other researchers, such as Hoxby (2004), and Miron and Nelson (2002), pointed out that such studies do not control for
student background factors and have made attempts to control such factors with some success. However, Miron and Nelson (2002) concluded that we simply do not know enough about student achievement in charter schools and often do not have the data necessary to draw valid conclusions.

It is in this context that we decided to undertake a small scale study with our intention being to see if a partner charter school performs better on state assessments while controlling for population factors by applying a z-test. Although we have multiyear data, we don't have the type of student level data necessary to measure the value added effects of schools. We did have authentic student data, however, which framed our context for the study by applying the principles of data driven instruction within the scope of responsive literacy and response to intervention

Data Driven Instruction. Data-driven instruction describes a method of using actual classroom data to encourage teachers to make sound pedagogical decisions based on student performance. As schools continue to be under scrutiny for assessment scores and use of evidence-based practices, several are seeing substantial improvements in student learning and achievement as they incorporate data-driven instruction. While definitions may vary, the underlying constructs do not. Within the research, the common major elements of data-driven instruction are good baseline data, measurable instructional goals, frequent formative assessment, professional learning communities, and focused instructional interventions (Marshall, 2009). Teachers in such schools are finding that frequent and practical uses of data can improve their instruction, re-energize their teaching, and increase their feelings of job satisfaction (Gersten \& Keating, 1995; McMaster, Fuchs, Fuchs, \& Compton, 2005).

Data-driven instruction (DDI) may require a paradigm shift for teachers. Their thought process shifts from one that is focused on day-to-day instruction to one where daily practices are evaluated for their direct impact on student learning. When first implementing DDI, some schools find that without extensive professional development and training, teachers quickly feel overwhelmed. On-going support from administrators, higher education institutes or outside trainers can assist with the responsibilities until teachers feel as if data collection and analysis are part of their daily teaching repertoire.

Data-driven teachers understand the need for multiple measures when assessing school and student success (Marshall, 2009). For example, simply looking at data from a single statewide test do not give teachers the specific information they need to enhance student learning. Information from supporting assessments is necessary for teachers to design appropriate interventions. Data-driven teachers need to apply both formative and
summative assessments to make sense of when and how the data can drive instruction.

Responsive Literacy. One theoretical framework that supports data driven and differentiated instruction is responsive literacy instruction. This theory is aligned with cognitive theory which includes elements of modeling, guided practice, scaffolding supports, fading supports and prompts as students gain independence over their learning (Mathes \& Torgenson, 2005; Simmons, Kame'enui, Stoolmiller, Coyne, \& Harn, 2003). In combination with this pedagogical approach, responsive literacy can be couched in the underpinnings of Vgotsky (1978) and cognitive-constructivist approaches in that the social aspect of any type of learning cannot be separated from the actual process of learning, therefore calling upon teachers to create learning environments that encourage and promote both.

The process of responsive literacy is comprised of five components; word work, fluency, assessment, supported reading, and supported writing (Denton \& Hocker, 2006). Using data collected from frequent assessment, those students who continue to struggle receive explicit instruction in phonics skills and text strategies while modeling and using scaffolds as students acquire these skills.

Response to Intervention. With the implementation of universally high standards for all students, including those with disabilities, the practice of documenting students' responsiveness to high quality, research based intervention becomes eminent (Individuals with Disabilities Act, 2004). Many students who are currently receiving specialized instruction often have reading difficulties (Haager, Klinger, \& Vaughn, 2007) in the areas of phonics, fluency and comprehension (Lovett et al., 2000). The Council for Exceptional children (CEC, 2007) posits that applying the principles of Response to Intervention (RTI) may help provide effective early instruction, provide diagnostic information and can reduce the impact of one's disability. RTI addresses these needs at three levels or tiers. Tier one consists of highquality classroom instruction for all students. Students not demonstrating progress through frequent on-going assessment may need Tier 2 intervention which is supplemental instruction. Some students may need more intensive and frequent instruction, which may be delivered via special education services or Tier 3. The focus of our study was to examine the effectiveness of Tier 1 instruction.

## Participants

## Target School (TS)

The target school in this study is a public charter school for children, parents and teachers who believe in weaving together the humanities, sciences, arts and social responsibility. The school received approval from the State University of New York Board of Trustees and the New York State Education Department to open in

September, 2001. The school serves 230 students in grades K-8. There are nine individual classrooms with 5 rooms offering support services. There are three consultant teachers; two in literacy and one in math. Additionally, the school employs six teaching assistants, each certified in childhood or special education. There are about six percent of teachers with less than three years’ experience, and a turnover rate fewer than five percent for teachers with less than five years' experience.

Additionally, the K-8 building plans to expand its' current enrollment by 150 students in the 2011-2012 school year. Beginning next year, fifty kindergarten students will be added, and twenty five new students will enter grades one, five and six. Each subsequent year fifty more kindergartners will be accepted.

The school includes diversity in its Mission and philosophy towards human growth and development. Students within the school represent various ethnicities with $57 \%$ of students identified as white, $33 \%$ as African American, seven percent as Hispanic, and one percent Asian and American Indian, respectively. Further, students bring various socio-economic levels into the school community. We used the percent of students receiving free or reduced lunch to determine students at the poverty level. There are approximately $34 \%$ of students who receive a free/reduced Lunch and $66 \%$ of students at full pay. It should be noted, however, that these numbers pertain to the K-8 building, as numbers and demographics change with regard to the high school.

Surrounding School District. Currently, there are 78 public schools in the district including a growing number of charter schools. As of 2010, the total enrollment was 41,089 students with a student-teacher ratio around 19 to 1 . The graduation rate was $51 \%$ in 2010, up from $45 \%$ in 2009 , and $50 \%$ in 2008 . More than $27 \%$ of teachers have a Master's degree or higher and the median amount of experience in the field is 15 years. The district serves a diverse student body with an ethnicity breakdown of $57.7 \%$ students of African American descent, $25.7 \%$ of students identify as Caucasian, 13.9 students list Hispanic as their identified race and $1.5 \%$ are Native American. The schools have approximately 6.20 \% of learners as English Language Learners.

Comparison School One ( $\mathbf{S}_{\mathbf{1}}$ ). One of the two comparison schools was selected because of the similar student demographics and the geographic location of the school. It a public magnet school located in the same urban area as the target school with a sample population of around 486 students in grade k- 8 . The average class size is 24 students, with only $3 \%$ of teachers with less than three years' experience. There is a teacher turnover rate of around ten percent for teachers with fewer than five years' experience. Similar to the mission at the target school, $\mathrm{S}_{1}$ believes that students need to become problem solvers with effective oral communication skills in order to be lifelong learners. The curriculum includes theme-
based units where students are actively engaged in authentic experiences integrated with the visual and performing arts. These units are similar to the arts integrated expeditions at the target school. Further, $\mathrm{S}_{1}$ is also a partner in a professional development school with a local state institution.

The student body is diverse with $44 \%$ African American, 34\% White, 14\% Hispanic, six percent Asian or other Pacific Islander and one percent American Indian. There are eighty seven percent of students who qualify for a free or reduced lunch and twelve pay full cost.

Comparison School Two ( $\mathbf{S}_{\mathbf{2}}$ ). The second surrounding school was selected for the similarity to both the target school and $\mathrm{S}_{1}$. The authors note that the comparison is not an exact math, but both surrounding sample schools had the closest demographic, geographic and curricular focus as the target school. Further, the target school will experience an influx of 150 students in the upcoming school year, which will more closely resemble the demographics of the surrounding district.
$\mathrm{S}_{2}$ also focuses on developing problem solving skills through authentic, hands-on activities that are designed to promote whole child development. The curriculum at sample school two emphasizes inquiry based learning and hands-on, minds on lessons that are relevant to students' lives. Again, similar to the thematic unit based pedagogy at $S_{1}$ and the expeditionary learning at the target school. This school includes integrated center-based learning to design their lessons and also weaves the arts into their student-focused instructional plans. Class size averages 25 with three percent of teachers having under three years' experience and zero percent of teachers with less than five years of teaching experience.

Students in $\mathrm{S}_{2}$ represent various ethnicities including $77 \%$ of students identified as white, fourteen percent at African American, five percent as Hispanic, two percent as Asian of other Pacific Islander, and one percent as American Indian. Forty-five percent of students are eligible for a free or reduced lunch, while $55 \%$ pay full cost.

Table 2
Comparison of Students who Qualify for Free or Reduced Lunch Across District, Target School and Surrounding Schools for 2009-2010

| Lunch | District (BPS) | Target (TS) | School 1 (S $\left.\mathrm{S}_{1}\right)$ | School 2 (S $\left.\mathrm{S}_{2}\right)$ |
| :--- | :---: | :---: | :---: | :---: |
| \% Free /Reduced | 77 | 34 | 88 | 45 |
| \% Full cost | 23 | 66 | 12 | 55 |

Table 3
Demographic Comparison of Students in District, Target School and Surrounding Schools for 2009-2010

| Ethnicity <br> \% American Indian | District (BPS) | Target (TS) | School 1 ( $\left.\mathrm{S}_{1}\right)$ | School 2 ( $\left.\mathrm{S}_{2}\right)$ |
| :--- | :---: | :---: | :---: | :---: |
| \% Black or African American | 1 | 1 | 1 | 1 |
| \% Hispanic or Latino | 57 | 33 | 44 | 14 |
| \% Asian or Other Pacific Islander | 14 | 7 | 14 | 5 |
| \% White | 2 | 1 | 6 | 2 |

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## Purpose of the Study and Research Questions

The purpose of this study was to examine state assessment data in order to determine: (a) how the overall student population of the sample school performed in comparison to similar public schools and (b) what additional supports might be needed to improve instruction. The research questions were:

1. Controlling for obvious differences in population size, is there a significant difference between the ELA and math assessment scores of the target school and the encompassing district? If so, what factors may contribute to this disparity?
2. Given the target school and two comparable urban public schools, is there a significant difference between two ELA and math assessment results? If so, what factors may contribute to this disparity?
3. Given the state assessment results from the target schools, is there a significant difference in performance at certain grade levels and what factors may help explain such differences?

Data Analysis and Results
The analyzed data included student English

Language Arts and Math scores from years 2007-2010 for the target school, encompassing district and the comparable public school. These scores included the percentage of students scoring at each proficiency level, one through four. To begin, researchers examined the scores from the target school to gain an overall picture of how well students have been performing over the past three years. Table 3 shows the ELA scores from a three year period in grades three through eight for the target school. Data show that $89 \%$ of third grade students are in levels 3 and 4. The results are consistent for the three years period for fourth grade students with a percentage of $87 \%$. The percentage of students at proficiency levels dropped in grades 6 and 8 . It should be noted that in 3rd grade, less than $11 \%$ of students are scoring below the minimal acceptable level, those percentages remaining relatively consistent in grade 4 and 5 (13\%, and $18 \%$ respectively). The concern arose as students began 6th grade, where more than $20 \%$ of students did not achieve passing scores and $25 \%$ in eighth grade. Interestingly, in 7 th grade only $16 \%$ of students did not pass, though still higher than the primary grades. We discuss possible reasons for this disparity in our discussion section.

Table 4
Percentage of Each Performance Level for Grades 3-8 ELA Scores in Target School*

| Grade | \# tested each year | Percentage of each performance level 3years\% for levels 3 and 4 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | level1 | level2 | level3 | level4 |  |
| 3 | 25 | 2.60 | 8.30 | 58.00 | 31.00 | 89.00 |
| 4 | 25 | 0.00 | 13.30 | 72.00 | 14.60 | 87.00 |
| 5 | 25 | 5.30 | 13.20 | 73.60 | 7.80 | 81.00 |
| 6 | 25 | 2.60 | 20.00 | 74.60 | 2.60 | 77.00 |
| 7 | 25 | 0.00 | 16.70 | 72.50 | 11.00 | 84.00 |
| 8 | 23 | 3.00 | 22.00 | 66.00 | 8.40 | 74.00 |

[^1]Table 5
Comparison Between Target School and the District Percentage of Performance Results in ELA Scores for 2009-2010
Grade Percentage of performance levels 3 and 4 in BPS and TS

L3and 4 BPSELA L3 and 4TSLEA

| 3 | 14.00 | 80.00 |
| :--- | :--- | :--- |
| 4 | 14.00 | 80.00 |
| 5 | 13.05 | 60.00 |
| 6 | 15.85 | 68.00 |
| 7 | 12.75 | 63.00 |
| 8 | 13.35 | 41.00 |

To determine if any significant differences existed between the target school, the encompassing district and comparable surrounding schools, the researchers extended this analysis with two other urban public schools with similar geographic location, student demographics and curricular focus (see Tables 1 and 2). For this analysis we specifically focused solely on students who scores at or above proficiency. For this research, we wanted only to compare the percentage of students who scored at or above proficiency in our target and surrounding schools. We hoped subsequent research would examine the disparities between the specific levels on the ELA assessment as a diagnostic-prescriptive tool. Table 4 indicates that the percentage of students who scored at proficiency on ELA in the target school (TS) ranged between $70-80 \%$ for grades 3 and 4 ; but these percentages decrease and are lowest in 8th grade with a percentage of only $41 \%$ in ELA. Comparatively, the percentage of students scoring at proficient levels in district schools (referred to as BPS) is lower, ranging between 13 and 16 percent. While the percentages differ, it is interesting to see that overall the grade level percentages are more consistent to one another. In TS, however, the students' scores consistently decrease as grade levels get higher. Percentages of students passing their ELA scores are as high as $80 \%$ in 3 rd and 4th grade;
yet as low as $41 \%$ in 8 th grade.
A comparison of sample proportions using twotailed Z-test shows a statistically significant difference among grades 3 and 4 in TS and BPS in ELA scores with a proportion of $80 \%$ in TS as compared to $14 \%$ in BPS (p $=.000$ ). Using the Z-test comparison, the results of approximately $60 \%$ of students in TS who passed ELA scores was not enough to exceed the proportion from BPS even though it looks lower and it is consistently below $15 \%$.

To strengthen the point of comparison and to see whether the target school's lower performance in the upper grades would remain consistent, we ran a comparison between TS and two schools in the same geographic and demographic area as previously described ( $\mathrm{S}_{1}$ and $\mathrm{S}_{2}$ ). An average of 60 students took the ELA tests in $\mathrm{S}_{1}$, and an average of a 100 students took the ELA tests in $S_{2}$. Since the samples are derived from the same population in BPS, we used the same Z test for estimation of the proportion of the population to look more closely at the results.

As displayed in Tables 6 and 7, the percentage of TS students scoring at levels 3 and 4 and the percentage at $\mathrm{S}_{1}$ are significantly different in all grades except for grade 8 where $\mathrm{S}_{1}$ outperforms TS with proportions of $41 \%$ in TS and a proportion of $31.15 \%$ for $S_{1}$. For grades 3-7, results

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Table 6
Comparison of the Estimation of the Population Between Target School and the District Percentage of Performance Results in ELA Scores for the School Year 2009-2010

| Grade |  | Percentage of performance levels 3 and 4 in BPS and TS |  |
| :---: | :---: | :---: | :---: |
|  | L3and 4 BPSELA | L3 and 4TSLEA | $p$-value based on estimation of population |
| 3 | 14.00 | 80.00 | 0.00 |
| 4 | 14.00 | 80.00 | 0.00 |
| 5 | 13.05 | 60.00 | 0.82 |
| 6 | 15.85 | 68.00 | 0.51 |
| 7 | 12.75 | 63.00 | 0.74 |
| 8 | 13.35 | 41.00 | 0.00 |

Table 7
Comparison Between Target School and $S_{1}$ and $S_{2}$ in Percentage of Students Scoring at Proficiency Levels 3 and 4 in English Language Arts for 2009-10 School Year for Grades 3-8

| G | TSELA | $\mathrm{S}_{1} \mathrm{ELA}$ | $\mathrm{S}_{2} \mathrm{ELA}$ |
| :--- | :--- | :--- | :--- |
| 3 | 80.00 | 33.60 | 6.25 |
| 4 | 80.00 | 34.50 | 10.00 |
| 5 | 60.00 | 27.20 | 9.00 |
| 6 | 68.00 | 35.00 | 11.45 |
| 7 | 63.00 | 22.65 | 11.05 |
| 8 | 41.00 | 31.15 | 9.85 |

Table 8
Comparison of the Estimation of the Population of Students Scoring at Proficiency Levels 3 and 4 Between Target School and S1 and S2 in ELA with Significance Level for the School Year 2009-2010

| Grade | TSELA | $\mathrm{S}_{1}$ ELA | $p$-value TS\&S | $\mathrm{S}_{2}$ ELA | $p$-value $\mathrm{TS}_{2} \mathrm{~S}_{2}$ |
| :--- | :---: | :---: | :---: | :---: | :---: |
| 3 | 80.00 | 33.60 | .91 | 6.25 | 0.00 |
| 4 | 80.00 | 34.50 | .00 | 10.00 | 0.82 |
| 5 | 60.00 | 27.20 | .04 | 9.00 | 0.78 |
| 6 | 68.00 | 35.00 | .07 | 11.45 | 0.94 |
| 7 | 63.00 | 22.65 | .00 | 11.05 | 0.94 |
| 8 | 41.00 | 31.15 | .41 | 9.85 | 0.00 |

show a statistically significant difference in favor of TS.
While the results of S1 are consistent throughout the grades (see Table 6), TS-even with better performance of students in grades 3-7-has not achieved consistent results. To show this discrepancy, we computed the standard deviation (based on grades levels 3-8 with $\mathrm{N}=6$ ), finding that TS has the highest standard deviation (Mean $=65.33$; $\mathrm{SD}=14.58$ ). The standard deviation for $\mathrm{S}_{1}($ Mean $=30.68 ; \mathrm{SD}=4.87)$ is higher than the standard deviation of $\mathrm{S}_{2}$ (Mean $=9.60 ; \mathrm{SD}=1.86$ ), demonstrating that the results on assessments in TS are not consistent across grades; while results in $\mathrm{S}_{1}$ and $\mathrm{S}_{2}$ are reasonably consistent.

## Discussion

The most consistent results found were significant differences between the target school and comparable public schools in grade levels 3, 4 and 5. As students entered grade six and above, there is little or no significant difference between the target school and comparable public schools. These findings indicated that in the early elementary years the majority of TS students not only scored at proficiency on the state assessments, but also significantly outperformed their peers in surrounding public schools. On the other hand, this trend does not remain consistent as students' progress grade levels. It should also be noted that the target school sample had been in the same school for the majority of their education. To clarify, most students tested in grades five through eight entered the target school at the kindergarten level and have remained, showing that their sole instruction occurred in the same school.

With regard to the results, it appeared that students in our target school do not score any better on assessments than students in lower performing schools when results were based on the corrected estimation of a proportion. Though the target school initially showed higher percentages of students at all grade levels who scored at proficiency levels 3 and 4, when 'leveling the playing field' for disparity in numbers, this finding generally only held true in grades three, four and five. Further, although the results of the research questions certainly demonstrate that the target school; more often than not; outperforms student performance in comparable schools, internally the results are inconsistent, as demonstrated by the high standard deviation (14.58). We suggest further research to determine why the internal inconsistency occurred, and to more closely why charter schools do not produce significantly better scores than the public counterparts, as one might expect.

Recommendations and Implications for Future Practice
The purpose of this study was to determine (a) controlling for obvious differences in population size, is there a significant difference between the ELA and math assessment scores of the target school and the encompassing district? If so, what factors may contribute to this disparity? (b) Given the target school and two comparable urban public schools, is there a significant difference between two ELA and math assessment results? If so, what factors may contribute to this disparity? And (c) Given the state assessment results from the target schools, is there a significant difference in
performance at certain grade levels and what factors may help explain such differences?

Based on the review of the data and knowledge of the current school structures, there are several recommendations that may improve student achievement and lessen the performance gap. Organized within the principles of data driven instruction (Marshall, 2005), our research indicated that there was not a true greater performance on the state tests by our target school. Further, upon closer examination we noted that there appeared to be greater disparity at the upper grades and a rather steady decrease in student performance. From this, we hypothesized that more intense instruction may be needed for students after fourth grade. We felt this recommendation is supported within the Responsive literacy theory (Mathes \& Torgenson, 2005; Simmons et al., 2003) and Response to Intervention (CEC, 2007), both of which are driven by frequent assessment and direct instruction in areas where students are struggling. Although our results didn't yield such specific data, we were able to identify target grade levels where Tier 2 interventions may be required. Specifically, we would recommend the target school provide some enrichment and remediation beginning in grade five, using a direct instruction approach enveloped within responsive literacy instruction. Again, the responsive literacy theoretical approach (Mathes \& Torgenson, 2005; Simmons et al., 2003) is based on principles of cognitive theory such as schema activation, modeling, scaffolding and gradual release of teacher responsibility (Mathes \& Torgenson, 2005). We would support a literacy intervention such as this to be a part of the literacy curriculum for the target school, with an emphasis in the later elementary years. Another of our implications would be to encourage principals and other school leaders to support practices of DDI as an ongoing part of daily instruction. Though we acknowledge certain schools may or may not do as well on assessment comparatively, we do concur with other research which lends support to the idea that teachers have the greatest impact on student performance (DarlingHammond, 2000; Goldhaber \& Brewer, 2000; Papay, West, Fullerton, \& Kane, 2012). Examining our student data allowed us to determine which students need greater assistance, and subsequently change instructional practices.

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[^0]:    *Source: New York State Education Department district and school performance report 2009-10.

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