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Student Engagement and the Use of
Volunteer Teachers in Alternative Urban Middle Schools

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Paper presented at the annual meeting of the American Educational Research Association, San
Francisco, April 8, 2006.

Abstract

The use of recent college graduates as volunteer teachers has increased in recent years with the growth of the Teach for America program and alternative middle schools for at-risk children from low income homes. Very few studies to date have investigated the effects of the use of such teachers on student learning and engagement in school. The present study examines the effectiveness of using volunteer teachers in 11 alternative urban middle schools that utilize the Nativity model. Results show that experienced teachers hold more positive perceptions of their teaching competence than do volunteers and their students rate the climate of their classrooms as more conducive to learning. Results also provide support for the value of using volunteer teachers, provided that they are well trained and supervised and that they are given more teaching responsibilities only as they become more competent in the classroom.

Student Engagement and the Use of Volunteer Teachers in Alternative Urban Middle Schools

Much concern has been raised in recent years over the effects of teacher quality on student learning, especially in urban schools where student needs are often greatest (Comer & Maholmes, 1999; Laczko & Berliner, 2002; Oakes, Franke, Quartz, & Rogers, 2002). Of particular concern has been the use of uncertified teachers, in particular volunteer teachers who work under the auspices of organizations such as Teach for America (TFA) or Americorps, in many urban schools to teach at-risk students (Laczko-Kerr & Berliner, 2002; Oakes et al., 2002). The present study examines the effects of employing such volunteer teachers in small, private middle schools that educate at-risk urban children. This examination of the use of these teachers in small educational settings can provide the field with information on the value of employing volunteer teachers and the conditions under which these teachers can be effective.

Perspectives on Teacher Quality and Student Learning

The value of having uncertified teachers in classrooms is not well supported by the research literature. For example, Darling-Hammond (2000), in a state-level analysis of factors related to student standardized test achievement in elementary, middle, and high school, found the greatest amount of variation in achievement to be related to the percent of well-qualified (possessing full certification and a major in their field) teachers employed, after controlling for student poverty levels. The percent of new, uncertified teachers employed in a school also accounted, in a negative direction, for significant variation in student achievement. Darling-Hammond (2000) also concluded that, although smaller class size contributes positively to student learning, student gains are most likely realized when the smaller classes are taught by well-qualified teachers. With respect to the relationship of teachers' years of experience and

student learning outcomes, research reviewed by Darling-Hammond (2000) shows a somewhat curvilinear trend, such that teachers with less than three years experience perform more poorly than do more senior teachers, but that teacher effectiveness peaks at about five years experience.

Other research provides strong support for the notion that the better the instructional quality in a classroom the better students learn (e.g., Cochran-Smith, 2003; Kaplan & Owings, 2001; Maryland State Department of Education, MDSE, 2003). In fact, Sanders and Horn (1998) found teacher effectiveness to be the strongest of a number of factors that predicted student academic progress. However, despite numerous studies that have examined characteristics of effective teachers, researchers have not agreed on the relative importance of various factors that determine teachers' effectiveness or which factors related to teacher quality are most responsible for student achievement gains (Wayne & Youngs, 2003). A question emerges, then, as to how effective novice teachers can be, especially in high-poverty urban schools, when they have had little or no previous teaching experience or training.

More specific to the question of employing volunteer teachers, research (Laczko-Kerr & Berliner, 2002) has shown that elementary school students taught by men and women hired by Teach for America with a college degree but without a certificate perform more poorly on standardized tests than do students taught by certified teachers in similar settings. However, other research (Decker, Mayer, & Glazerman, 2004; Raymond, Fletcher, & Luque, 2001) has shown that TFA volunteers have positive effects on student learning. For example, the study conducted by Decker et al., which compared TFA teachers with novice trained controls in low-income schools in six school districts, found higher math achievement gains for students instructed by TFA teachers when compared to students taught by controls, even though TFA teachers entered their teaching placements having had less previous classroom experience than

did novice control teachers. In addition, Raymond et al., in their research on the effectiveness of TFA teachers in Houston, concluded that TFA teachers had a positive impact on student performance, although they did not identify factors that contributed to student achievement.

These findings (Decker et al., 2004; Raymond et al., 2001) suggest the need to examine characteristics of TFA-type teachers that contribute to positive learning outcomes for at-risk students. Among the factors that distinguished the TFA sample were the much higher proportion that graduated from colleges and universities rated as *very, highly, or most competitive* as compared to control teachers (Decker et al.) and the rigorous screening used to select teachers (Raymond et al.). Related to these findings, a controversial report on teacher certification (Abell Foundation, 2001) summarized research findings showing that teachers' verbal ability, higher among those who attend selective colleges and universities, was related to students' achievement gains. Darling-Hammond (2002), in her vigorous challenge to the validity of the Abell report's conclusions, insisted that, although verbal ability was related to student achievement gains, other factors related to teachers' certification were much more influential. Darling-Hammond's (2000, 2002) review of the research literature, then, suggests that researchers examine more closely the extent to which TFA teachers affect positive student outcomes.

As Darling-Hammond (2000) suggested, studies that examine teacher qualifications often fail to reveal much about the actual teaching practices that affect student learning outcomes. How a teacher structures the classroom learning environment and how students perceive the quality of the environment affect student learning (Waxman & Huang, 1996). For example, Waxman and Huang reported that at-risk urban middle school students who reported higher levels of motivation and academic self-competence viewed their classroom learning environments as characterized by higher levels of active student involvement, a greater

orientation to getting work accomplished, and greater clarity about expectations for behavior. According to Hale (2001) teachers of African American children, particularly in urban schools, need to adapt learning activities to the learning styles of these students and provide instruction that is “variable, vigorous, and captivating” (p. 117). Her analysis is seconded by the President’s Advisory Commission on Educational Excellence for Hispanic Americans (2003) with respect to the children of Latino families. These findings suggest, then, that teachers who can structure culturally and educationally compatible learning environments and communicate high expectations for performance will enable students to engage more in the learning process (Gay, 2000).

A vital aspect of culturally responsive teaching, according to Gay (2000), is caring which, in her framework, is multidimensional and evidenced in teaching practices that encourage high levels of student academic performance, demonstrate a high level of respect for students, provide students with the skills needed to succeed, and hold students responsible for completing assignments. Caring teachers make appropriate demands of students, help them when needed, and listen to their concerns in a supportive and friendly manner (Finn & Rock, 1997; Gay; Klem & Connell, 2004). These characteristics are particularly important when at-risk learners, who have a variety of learning styles and family backgrounds, are involved (Darling-Hammond, 1996). Research (Finn & Rock; Klem & Connell) shows that students respond positively to caring instruction and teacher support by engaging more in learning and working hard to achieve.

Small schools, because they can more easily promote a sense of healthy community among students and teachers, tend to have teachers who are more caring and who provide extra assistance that some students may require (Balfanz & Mac Iver, 2000). This research would

suggest that inexperienced teachers may have a better chance of effectively engaging students in learning when they teach in small schools and other schools that provide a caring and supportive environment for learning.

With all that is expected of teachers of students considered at-risk, adequate initial and ongoing preparation, to include effective mentoring of teachers, especially those with little classroom experience, appears to be crucial (Darling-Hammond, 1996, 1998). Because of the complexities involved in assisting diverse learners, inexperienced and untrained teachers would appear to be ill equipped to provide rich learning environments that meet the diverse learning needs of at-risk students and positively affect student learning. The extent to which inexperienced, non-certified teachers are afforded ongoing opportunities to learn about effective teaching and learning and reflect on their work, with the assistance of an effective mentor, may be crucial to their success in the classroom (Brennan, Thames, & Roberts, 1999; Darling-Hammond, 1998).

The schools chosen for the present study are alternative, privately-funded middle schools for at-risk urban children that employ volunteer teachers through Americorps and other similar, often religious-affiliated, volunteer organizations, as well as certified and non-certified experienced educators. These schools, known as Nativity schools, are based on a model of small classes (of at most 15 students) for instruction, additional afternoon and evening tutorial and homework assistance, a summer program with an academic component, and strong academic support for its graduates. Budget constraints initially led Nativity schools to hire volunteer teachers for one or two years and the practice has continued, although Nativity schools vary with respect to the proportion of volunteer teachers on their teaching staff. Because Nativity schools admit students who qualify for the federal free or reduced lunch program and who enter middle

school one or two grade levels behind in academic achievement, a high quality teaching staff would seem to be essential to the goal of bringing students up to grade level and beyond by the time they graduate.

The goals of the present study, then, are to examine how learning environments in the classes taught by experienced full-time teachers and inexperienced volunteer teachers in Nativity schools differ and to compare the effects of teacher experience and certification on multiple measures of the quality of the classroom learning environment. The quality of the learning environments will be examined with respect to teachers' and students' expressed perceptions and from classroom observations. In addition, the relationship between student standardized test score performance and the size of a school's volunteer teacher staff is examined and interview data are used to understand factors related to volunteer teacher effectiveness.

Method

Participants and Schools

The schools. The first author spent one to two full school days at each of 11 Nativity model middle schools during October and November of 2003 and February of 2004, observing classes and interviewing teachers, administrators, and students. Of the eleven schools, ten were affiliated with a religious organization. The mean number of students enrolled in these schools was 66.5, with a range of 52 to 96, in grades 5 through 8 (7 schools) or 6 through 8 (4 schools). Three of the schools educated girls only, five educated boys only, and three educated both boys and girls. During the 2003-04 school year, the eleven schools employed a total of 57 volunteer teachers (mean of 5.2 per school) and the equivalent of 68.9 experienced teachers in a full-time or part-time capacity (mean of 6.3 per school). In all of the schools, individuals who held administrative positions also taught one or more classes.

Teachers. Surveys were completed at nine of eleven schools visited by 101 teachers (96% response rate), 40 of whom were first ($N=19$) or second year ($N=21$) volunteer teachers and 61 of whom were full-time experienced teachers, with a mean of 14.4 years experience. Among the volunteer teachers, 16 were men (40%) and 24 were women. Seventy-four percent identified themselves as Caucasian, 15 percent as African American or Black, and the remaining 11 percent in other racial categories. In addition, only one volunteer teacher held a professional teaching certificate, one an emergency certificate, and 38 no certificate. Among the full-time experienced teaching staff were 20 men (33%) and 41 women (67%). Sixty-nine percent of these teachers identified themselves as Caucasian and 26 percent as African American or Black. With respect to certification status, 48 percent held a professional teaching certificate, 7 percent a provisional certificate, and one teacher an emergency certificate. Forty-three percent were not certified, although the vast majority were pursuing certification through master's degree programs. With respect to urban school teaching, fully certified teachers reported 11.6 years experience, non-certified teachers 9.3 years, the four with provisional certification 3.8 years, and the one with emergency certification 8 years. Volunteer teachers, who were hired under a local or national volunteer service program, received a stipend of \$300 to \$400 per month, in addition to housing, health insurance, and a food allowance. Full-time experienced teachers received salaries and benefits at, or slightly above, the level of parochial school teachers in their region.

Students. A total of 519 students from nine Nativity schools, representing 91 percent of the total student population, completed questionnaires administered by homeroom teachers. Sixty-five percent of students were boys and 35 percent were girls and the mean age of the students was 12.0 years ($SD=1.1$). The two largest racial/ethnic groups represented among the students were African American (56%) and Hispanic (30%), and another 5 percent identified

themselves as Cape Verdean. Ninety-five percent of students qualified for free or reduced lunch. In addition, focus groups of students were held at each of the schools which involved a total of 84 students. The focus group participants were selected by the school administration to represent a cross section of students from various grades and levels of academic performance.

Materials

Teacher surveys. Teachers completed questionnaire items with respect to their perceptions of their own performance and challenges in the classroom, the quality of the support they receive from the school's administration, and their pedagogy, in addition to demographic information. For the present study, data were analyzed with respect to responses on the following items: perceptions of the amount of class time they spend on disciplining students, perceptions of how much of a problem student behavior presents, and satisfaction with their teaching quality. These items were scored from 1 to 4 depending on the extent to which teachers felt a particular quality or characteristic was true for them. In addition, a scale consisting of seven items ($\alpha = .72$) assessing the extent to which teachers reported involving students in learning activities and a seven-item scale that assessed perceptions of the level of support provided teachers by the school administration ($\alpha = .74$) were utilized.

Student surveys. For the present study, students' perceptions of the quality of the mathematics and language arts classroom environments were assessed using two very similar 12-item scales that included items related to the level of help and support teachers provide, how much learning takes place, and the extent to which learning is enjoyable. On each item, students indicated the extent to which they agreed or disagreed with the items on a 4-point scale. Alpha reliabilities are .83 for language arts and .78 for mathematics.

Standardized test scores. Reports of individual student standardized test scores in reading and mathematics were obtained from reports provided by administrators at eight of the eleven schools visited. The data were provided in terms of grade equivalents (GEs) for seven of the schools and percentiles at one school. Among the eight schools, four administered the Iowa Test of Basic Skills, two administered the Terra Nova, and two administered the Stanford 9. For this study, students' scores were coded with respect to whether their performance improved one GE (or one national percentile point) or more per year during the time they attended the school.

Classroom observations. Provided with a schedule of classes at each school, the first author selected a cross section of classes of experienced and volunteer teachers in a variety of subjects. In all, the first author observed at least part of 46 classes of 42 different teachers, 67 percent of whom were experienced full-time teachers. Of these classes, 25 were observed for 30 minutes or more, representing 14 experienced and 11 volunteer teachers. A modified version of the Classroom Environment Scale (CES; Moos & Trickett, 1987) was used to guide the recording of teacher and student behaviors in these classes. The modified form included items that addressed behaviors that could be observed during a 30-to-50 minute class period. The CES scales used included: (a) *Involvement*, or the level of engagement of students in the lesson (9 items); (b) *Teacher support*, or the extent to which teachers demonstrate respect for and desire to help students (9 items); (c) *Task orientation*, or the extent to which students are on task (8 items); (d) *Teacher control*, or how well the teacher manages student classroom behavior (8 items), and (e) *Order and organization*, or the extent to which the teacher begins class on time, students are in their seats ready to begin work, and the teacher makes effective transitions between instructional activities (9 items). The first author used a 3-point response scale (scored 0, 1, or 2) to record whether a particular behavior was *Really True*, *Somewhat True*, or *Not True* for the teacher or

students in the class. A teacher was rated as *High* on a scale if a score of 14 on a 9-item scale or 13 on an 8-item scale (approximately 80% of the maximum score) was recorded, *Moderate* if a score between 11 and 13 on a 9-item scale or between 10 and 12 on an 8-item scale (between 60% and 80% of the maximum score) was recorded, and *Low* if a score lower than 10 on a 9-item scale and 9 on an 8-item scale was recorded. Reliability for the CES as utilized was established in an earlier study (Fenzel, Peyrot, & Premoshis, 1997) and verified by having two raters independently evaluate teaching in three classes from the present study.

Interviews. The first author conducted semi-structured interviews with 53 teachers (mean of 4.8 per school), 72 percent of whom were experienced full-time teachers and 28 percent volunteers. The interview questions addressed the challenges faced by the teacher, the quality of the instructional program and administrative leadership, and the extent to which they felt students were affected by the use of volunteer teachers. Questions posed to students for the focus group interviews addressed their perceptions of the curriculum, strengths and weaknesses of their teachers, length of the school day, academic difficulty of the program, benefits of the summer program, and the benefits and harm of having volunteer teachers. Also, during each school visit the principal or head of the school provided the first author with an accounting of the number of full-time and part time teachers and whether they were experienced, full-salaried hires or volunteer teachers. These data are summarized in Table 1.

Results

Teachers' Self-Perceptions

To examine the research question of differences between volunteer and experienced teachers with respect to the effectiveness of their teaching practices and the quality of the learning environment of their classes, a variety of methods were employed. First, differences

between volunteer and experienced teachers' perceptions of their instructional effectiveness were examined with a series of independent t tests. Volunteer teachers reported a mean of 1.5 years of teaching at the time of the assessment and experienced teachers reported a mean of 14.4 years teaching experience. Results, summarized in Table 2, showed several significant between-group differences. First, volunteer teachers reported that they needed to spend class time disciplining students to a greater extent than did experienced teachers and expressed the view that student misbehavior was more of a problem. Furthermore, volunteer teachers reported a lower level of satisfaction with the quality of their teaching, that they engaged students less often in class activities, and that administrators provided them with less support, as compared to experienced teachers.

Independent t test analyses were also used to examine whether certification status among the experienced teachers mattered with respect to the perceptions addressed above. Results, presented in Table 3, showed only one significant difference in that certified teachers reported a greater likelihood of involving students in learning activities. In ANCOVA analyses, controlling for the number of years of teaching, this finding maintained significance, $F(1,37)=5.98, p = .019$.

When perceptions of first- and second-year volunteer teachers were compared, two significant differences were found. Second year teachers reported a significantly higher level of satisfaction with the quality of their teaching, $t(38) = 1.90, p = .033$, and greater success engaging students in learning activities, $t(38) = 2.27, p = .015$.

Student Perceptions of Classroom Climate

Data were analyzed from questionnaires completed by students, for whom their math and language arts teachers could be identified, to compare the perceptions of the climate of their

classes taught by either experienced and volunteer teachers. Results showed that students perceived the climate of the mathematics classes as being more supportive and task oriented when the teacher was experienced ($M=3.24$, $SD=.44$) than when the teacher was inexperienced ($M=3.09$, $SD=.41$), $t(390) = 3.18$, $p(1\text{-tailed}) = .001$. Similar results were found when comparing experienced ($M=3.02$, $SD=.55$) and inexperienced ($M=2.91$, $SD=.49$) language arts teachers, $t(396) = 1.77$, $p(1\text{-tailed}) = .039$.

Observation and Interview Data

Table 5 shows results of chi-square analyses that compared the classroom environment ratings of experienced and volunteer teachers on five CES (Moos & Trickett, 1987) scales computed from individual item ratings made by the first author during 25 classroom observations. Results showed that classes conducted by first- and second-year volunteer teachers were characterized by significantly lower levels of student involvement, teacher control, and task orientation, as compared to the classes taught by experienced full-time teachers. Differences with respect to order and organization and teacher support also favored experienced teachers, although these differences did not achieve statistical significance.

Qualitative data recorded by the first author inform and corroborate the findings of the chi-square analyses and student questionnaire responses. For example, a first-year volunteer teacher conducting a science lab exercise for 12 students working in teams of three failed to recognize several students who were not following directions or grasping the concepts being examined as they copied data from a lab partner onto their worksheets, often incorrectly. At another school, a first-year teacher, who had asked students to raise their hands and be acknowledged before answering the teacher's question, repeatedly permitted violations of this requirement and used a considerable amount of class time to address misbehavior of the group of

eight students, as well as that of individual students. Similar difficulties were noted for other first-year volunteers. On the other hand, a first-year volunteer math teacher at one school had very good control of a class of 12 boys in which several students asked questions about the content of the teacher's presentation, although three or four boys appeared to be disengaged in the lesson for part of the class. In classes conducted by experienced full-time teachers, and most second-year volunteers, instruction was generally more varied and teacher control, student engagement, and task orientation were higher when compared to first-year volunteers. One area for which only a small difference was found favoring experienced teachers over inexperienced teachers was on the level of support teachers provided students.

In interviews with teachers and administrators, the most frequently cited difficulty faced by volunteer teachers was with the management of student behavior in the classroom. On the other hand, principals were in unanimous agreement of the benefits that volunteers brought to the school in terms of their high levels of motivation to help students, their high energy levels, and their commitment to working long hours. Because of the struggles faced by four first-year volunteer teachers at one school during the previous year when they were given immediate responsibility for several classes, the administration changed the manner in which they utilized their two first-year volunteers during the time of the present study by gradually increasing the teachers' classroom responsibilities as the school year progressed and their competencies improved. In addition, the principal increased the amount of time she spent in coaching the volunteer teachers. Where first-year volunteer teachers logged fewer hours in the classroom, they were assigned afternoon and evening study hall and afternoon sports or activity supervision or coaching duties. In most schools, second-year volunteers logged more classroom teaching hours than did first-years. All principals indicated that the volunteer teachers were crucial to the

success of their schools because of the duties they perform, such as tutoring and monitoring after-school athletic and arts programs, for which the schools could not afford to hire certified, experienced teachers.

In focus group interviews, two main themes emerged with respect to the volunteer teachers. Students generally expressed disappointment that the volunteer teachers leave the school after students get to know them for only one or two years. Much more so, however, students expressed widespread appreciation for and benefit from the genuine personal concern and interest that the volunteer teachers, as well as full time teachers and administrators, showed them. In particular, student comments consistently indicated that they appreciated the volunteer teachers being available for academic help and that nearly all teachers listened to them and showed that they cared.

Student Standardized Test Scores and School-Level Measures

Analyses were conducted at the school level to examine relationships between students' mean yearly gains in standardized test scores in reading and mathematics and the percentage of the teaching staff comprised of volunteers. Spearman *rho* analyses showed a positive correlation between the percentage of volunteer teachers on staff and the percentage of students in the school whose standardized test scores in math increased by one or more grade equivalents per year of attendance, $rho (N=8)=.84, p = .005$. The *rho* value relating the level of volunteer staffing to reading achievement gains was positive also ($rho = .42$) but not statistically significant. When the relationship between other aspects of staffing and the percentage of students demonstrating high increases in standardized test scores were examined, no significant relationships between the size of the teaching staff and either math score increases, $rho = -.06$, or reading score increases, $rho = -.12$. Similarly, no significant relationship was found between the

student-teacher ratio at the school and either math score increases, $\rho = -.36$, or reading score increases, $\rho = -.56$.

Discussion

The present study was designed to examine the benefits and disadvantages of using volunteer college graduates to teach middle school children in alternative urban schools in which a high percentage of the students qualify for federal free or reduced lunch. Considerable quantitative and qualitative data were collected and analyzed to address the question.

Results of analyses of teacher self-perceptions and student perceptions showed consistently that experience in the classroom was related to measures of teacher effectiveness, findings with strong support in the research literature (Darling-Hammond, 2000). For example, teacher self-reports showed that inexperienced, first- and second-year volunteer teachers, most of whom were not certified, when compared to more experienced certified and uncertified teachers, spent more time disciplining students during class, involved students less in classroom learning activities, viewed student misbehavior as more of a problem, and reported less satisfaction with the quality of their teaching. These findings suggest that teaching experience helps teachers manage student behavior better and engage students more in learning activities.

Other findings support the notion of the importance of prior teaching experience. For example, second-year volunteer teachers, when compared to first-year volunteers, indicated greater success in engaging difficult students and higher levels of satisfaction with their teaching. In addition, the results of comparing student perceptions of the climate of the language arts and mathematics classes of volunteer and experienced teachers showed that the instruction provided by experienced teachers engaged students more and facilitated more group learning activities.

When the data from teacher self-reports, student surveys, and classroom observations are considered together a clear picture emerges that suggests that classroom practices of first-year volunteer teachers are less effective in engaging students in the learning process when compared to those of more experienced teachers. First-year volunteers demonstrated less effective classroom management practices and less success at monitoring the engagement of individual students in learning activities. The volunteers who exhibited greater classroom control and engaged students more tended to be those who had a year of teaching experience in their school. Although research has not been clear on the effect of teacher experience on student learning (Wayne & Youngs, 2003), observations and teacher feedback from the present study showed that teachers with even one year of experience, who had been and were continuing to be mentored by a competent educational leader, were effective and confident teachers.

Statistical analyses at the school level in this study were not able to shed light on how at-risk students perform on standardized tests when taught by volunteer teachers as compared to experienced teachers. However, the finding that the presence of a larger percentage of volunteer teachers is related to greater gains on students' standardized test scores in reading, is noteworthy. Although volunteer teachers, in particular first-year volunteers, are responsible for teaching some classes in the Nativity schools, they also work with the students in small groups during afternoon and evening study halls and tutorials. The larger number of volunteer teachers in these schools is likely to be related to more time students spend on learning activities because of the volunteers' involvement in helping students during these extra sessions. That these effects may be evidenced in increases in reading, but not mathematics, achievement is not clear, however. The answer may lie in the greater amount of class time allotted to reading (typically 90 to 120 minutes per day) than to math (typically 60 to 75 minutes per day) in the schools observed.

Other results support the value of employing the services of volunteer teachers in urban schools. Volunteer teachers contribute to the effective education of at-risk urban students, especially as tutors, small group instructors, and activity supervisors, in part because of the desire they bring to help students develop academically, as well as socially, emotionally, athletically, and spiritually (Podsiadlo & Philliber, 2003). Data from interviews with teachers, administrators, and students show that students respond favorably to the commitment and genuine interest and care that volunteer teachers bring to their schools. As research has shown (Finn & Rock, 1997; Gay, 2000; Klem & Connell, 2004), having teachers who care and are supportive has a positive effect on school engagement and learning for at-risk students.

However, where classroom teaching is concerned, motivation and caring, although important, are not enough. In addition to teaching experience, results also point the importance of training in techniques of effective classroom management and structuring learning activities. In addition to undergraduate or graduate education courses, training can also take the form of regular and informed mentoring to help inexperienced volunteer teachers master the challenges of classroom management and engaging students in the learning process. Future research might examine more closely how mentoring and experience contribute to teacher effectiveness, as experience without adequate training is not enough to ensure teaching competence. The findings of the present study suggest that high-quality mentoring can contribute substantially to beginning teachers' effectiveness and confidence.

Results of this study have implications for effective use of volunteer teachers in Nativity schools and other parochial and public middle schools that educate students in the inner cities who require high quality instruction in order to improve their academic skills and become engaged in the learning process. Results also support and add to the literature on the value of

volunteer teachers. Volunteer teachers might best be used initially in the role of aids or tutors and should be given classroom teaching responsibilities only when they have demonstrated the competence to do so. If volunteer programs, such as Americorps and Teach for America, provide enough funding to help support such programs, public, parochial, and private schools for inner city children can benefit from the services of these dedicated, motivated, and energetic college graduates. At the same time, failing to prepare, support, and mentor volunteer teachers as they learn to become effective instructors can have negative effects on student learning and may undermine the confidence of the volunteers.

It must be recognized that the size of the classes and schools from the present study limits the application of findings to large public urban middle schools that also lack the personnel found in Nativity schools. Larger schools may not be able to provide the regular mentoring needed by volunteer teachers or the sense of community that is characteristic of smaller schools (Balfanz & Mac Iver, 2000). Future research might investigate how larger urban schools might utilize effectively recent college graduates who volunteer to teach through Americorps, Teach for America, or other organizations, as a cost-effective approach to improving students' engagement and performance in school.

Institutions with teacher education programs might examine how they can participate in the training of volunteer teachers in order to increase their effectiveness, particularly in the areas of deficiency identified in the present study. At the very least, such schools might offer courses to students intending to apply to Teach for America and other agencies to provide them with some of the tools necessary to be successful teachers. Teacher education programs might also form partnerships with the schools that employ the volunteers in order to provide the early training and mentoring that volunteers will require. As Sandholtz (2002) suggested, school-

university partnerships for inservice professional development are well suited for engaging teachers in a seminar format in which teachers can share ideas and collaborate on improving practices.

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Table 1

Student and Staff Characteristics and Student Standardized Test Score Gains

School	Student Enrollment (# of Grades)	Number of Teachers in the School (FTEs)	Number of Volunteer Teachers	% of Staff Comprised of Volunteer Teachers	% of Students Gaining in Reading more than 1 GE per year	% of Students Gaining in Math more than 1 GE per year
1. NYC Girls	62 (4)	8.6	5	58	88.9%	74.1%
2. NYC Boys	60 (3)	9.5	5	53	83.8%	78.4%
3. New Engl Girls	60 (4)	10	7	70	n/a ¹	n/a
4. New Engl. Boys	66 (4)	15.6	11	71	n/a	n/a
5. New Engl. Coed	80 (4)	18	11	61	79.5% ²	65.8% ²
6. Mid Atlantic Girls	52 (4)	7.8	1	13	40.0%	40.0%
7. Mid Atl. Coed	68 (3)	10.5	3	29	75.0%	65.0%
8. Mid Atlantic Boys	75 (3)	11.8	5	42	72.0%	40.0%
9. Midwest Boys	53 (3)	11.2	3	27	65.7%	94.1%
10. Southern Boys	60 (4)	8.3	4	48	n/a	n/a
11. Southern Coed	96 (4)	14.6	3	21	29.4% ³	34.3% ³
School Totals	732	125.9	58	46.1	74.8%	66.3%

Notes: ¹ Standardized test score data was not made available; ² Where test scores were reported in national percentiles only, percent reflects students who gained one of more percentage points per year. ³ Data from class of 2002 (2004 data not provided).

Table 2

Comparison of Inexperienced Volunteer and Experienced Teachers on Self-Perceptions of Teaching Competence and Administrative Support Regardless of Certification (N=85)

Perception	Volunteer Teacher Mean (SD) N=40	Experienced Teacher Mean (SD) N=45	<i>t</i> (one-tailed)	<i>d</i>
Teacher engages students in learning activities	3.48 (.32)	3.71 (.25)	3.80***	.83
How much of a problem is student misbehavior?	3.10 (.74)	2.48 (.91)	-3.43***	.75
Teacher needs to spend considerable time disciplining students	3.06 (1.24)	1.78 (1.22)	-4.40***	1.05
Level of satisfaction with one's teaching quality	3.10 (.67)	3.51 (.59)	3.01**	.66
Administrative support	3.40 (.52)	3.60 (.39)	2.10*	.46

*** $p \leq .001$, ** $p \leq .01$, * $p \leq .05$

Table 3

Comparison of Certified and Non-Certified Experienced Teachers on Self-Perceptions of Teaching Competence and Administrative Support Regardless (N=40)

Perception	Certified Teacher Mean (SD) N=21	Non-Certified Teacher Mean (SD) N=20	<i>t</i> (one-tailed)	<i>d</i>
Teacher engages students in learning activities	3.79 (.19)	3.61 (.28)	-2.32*	.75
How much of a problem is student misbehavior?	2.35 (.81)	2.50 (1.00)	0.52	.17
Teacher needs to spend considerable time disciplining students	1.89 (1.31)	1.50 (1.10)	-0.96	.33
Level of satisfaction with one's teaching quality	3.55 (.60)	3.50 (.61)	-0.26	.08
Administrative support	3.71 (.28)	3.56 (.40)	-1.35	.43

*** $p \leq .001$, ** $p \leq .01$, * $p \leq .05$

Table 4

Classroom Environment Scale Ratings of Experienced and Inexperienced Teachers

CES Scale	Experienced Teachers (N=14)			Inexperienced Teachers (N=11)			Chi- square
	Low	Moderate	High	Low	Moderate	High	
Involvement ¹	0	1	13	1	6	4	9.04**
Teacher Support	0	2	12	0	5	6	2.97+
Task Orientation ¹	0	3	11	1	6	4	4.57*
Teacher Control ¹	0	2	12	2	4	5	4.59*
Order and Organization ¹	0	4	10	2	5	4	3.07+

*** $p \leq .001$, ** $p \leq .01$, * $p \leq .05$, + $p \leq .10$

Note: ¹ Low and Moderate frequencies were combined for Inexperienced Teachers to eliminate non-zero cells.