Journal of Modern Education Review, ISSN 2155-7993, USA
January 2012, Volume 2, No. 1, pp. 1–8
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Impact of Caring Teachers and Character Values Instruction on Student Achievement in Inner-city Middle Schools

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Abstract: Many symptoms of character degeneration in inner-city schools have been indicated by the high incidence of fights, bullying, suspensions, youth gangs, generalized display of disrespect, and low achievement levels. In response to such symptoms, a school-based character education program was implemented in Houston ISD in 2006–08. The program sought to improve student achievement by enhancing: (1) teacher levels of caring and fairness; and (2) student levels of caring and honesty. Through a carefully matched-pairs method, based on socio-economic status, ethnicity, gender and baseline reading scores, two cohorts of 6th grade students from the two intervention schools and a comparable non-participating school were monitored over a two-year period. The assessment of program effects indicated that the two program schools achieved higher and statistically significant Teacher Caring levels (effect sizes: 0.10–0.54), and Teacher Fairness levels (effects sizes: 0.74–1.00). The program students also achieved statistically significant gains: (1) in Caring levels (effect sizes: 0.41–0.64), and Honesty levels (effect sizes: 0.59–0.72); and (2) in reading and math (effect sizes: 0.20–0.45), with percentile values from 8 percentile units (58th in Reading) to 17 percentile units (67th in math) higher than that of the comparison group.

Key words: character education, student achievement, values education, middle school, at-risk students

1. Introduction

As the nation's urban middle and high schools grapple with the provision of significant learning experiences for their students, many educators seem to have overlooked the vital role a school-based character education program could play in improving not only students' character values but, more importantly, their academic performance levels (Berkowitz, 2006; Etzioni, 2008; Hunter, 2009; Winton, 2008). The increasing numbers of absentee-parents, emotionally distant or preoccupied parents, fatherless homes, less-stable marriages, step-families, and the subsequent lack of adequate "quality" and "quantity" time between children and parents, have increasingly relegated character-values education for children from parents to the mass-media, especially television, the internet, and children's neighborhood peers (Popenoe, 1996; Sanchez, 2004). One can envision the adverse impact on children, of television shows and movies in which disagreements, conflicts, and sour

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relationships are often resolved though violence, physical abuse, and verbal abuse. Without a school-based character-values intervention, many of today's inner-city children may be lost to the values of the drug culture, gang culture, television shows, and movies of violence or abuse.

Many symptoms of character degeneration in our urban schools have been indicated by the high incidence of fights, bullying, suspensions, youth gangs, and generalized display of disrespect, verbal abuse, and physical assault of teachers by students (Sanchez, 2004; NCES, 2009). One wonders why some students feel unsafe at school, dropout of school, commit crimes and get incarcerated, or why all of the nation's inner city K-12 institutions now have their own police departments and building-level video-surveillance systems; and, among other factors, why the overall academic performance levels in inner-city schools are lower than they are in private and parochial K-12 schools, where high student discipline is the norm.

Houston ISD's pioneering effort in urban school reform pertaining to character education dates as far back as the early 1990s, when it initiated K-12 character-values education. However, the integration of character values into classroom instruction began with a United States Department of Education's Partnerships in Character Education Program (PCEP) grant in 2002. The success of the initiative led to the emergence of a comprehensive model, the *Houston Partnership for Character* (HPC) Program, which received a second PCEP grant in 2006–07. The research objectives that guided the evaluation of the program were: (1) to determine the extent to which the HPC program strategies were implemented; and (2) to assess the extent to which the HPC program increased the caring levels of participating teachers and students, as well as the honesty and academic achievement levels of participating students.

2. Research Procedures

2.1 Study Design and Sample

A quasi-experimental two-group pretest-posttest design was used for this assessment of program effects or effectiveness. And, to facilitate baseline equivalence between the program students and the experimental comparison students, two levels of baseline matching were undertaken. First, a comparison middle school, with similar institutional and community demographics and academic performance levels was selected for the two HPC middle schools (Table 1). Secondly, for each HPC student a student from the comparison school was matched on free lunch status, ethnicity, gender, and sixth grade Stanford Achievement Test reading scores. This cohort of matched pairs was followed for two years, from 6th to 7th grade (2006–2008).

As a result of a mix of sample mortality factors such as student retentions, mobility, and cohort students who did not complete the baseline survey in sixth grade or the post-survey in seventh grade, the sizes of the match-paired cohorts experienced considerable declines: HPC-MS-1, from 173 students in baseline year to 102 in 2007–08, and HPC-MS-2, from 290 students in baseline year to 108 in 2007–08. Furthermore, while some of the intervention students who completed both surveys could not be included in the matched-pairs analysis because of their lack of Stanford Achievement reading and math test scores, others could not be included because of the loss of their pair partners, unless an appropriate substitute pair could be identified from the comparison pool of students. Consequently, the numbers of HPC 6th–7th grade cohort students with both baseline and second year survey data, Stanford test scores in both reading and math, and matched-pair partners, decreased in the two HPC schools.

Table 1 Demographics of Participating Schools (HPC MS-1 & HPC MS-2) & Comparison School (Comp-MS): Baseline Year-2006–07

School	HPC-MS-1	HPC-MS-2	Comparison MS
Student Enrollment (All Grades: 6-8)	986	1068	1160
Female Students (%)	49%	48%	49%
Hispanic Students (%)	99%	95%	96%
Other Ethnic Groups (%)	1%	5%	4%
Free/Reduced Lunch (%)	91%	94%	90%
LEP Students (%)	21%	20%	24%
At-Risk (%)	69%	65%	70%
Student Mobility Rate (%)	19%	22%	21%
Stanford Test Reading NCE Average (6th Grade)	45	45	43
Stanford Test Math NCE Average (6th Grade)	57	53	52
Number Teachers	57	69	56
Male Teachers (%)	39%	36%	39%
African American Teachers (%)	30%	16%	30%
Asian Teachers (%)	12%	17%	2%
Hispanic Teacher (%)	21%	26%	18%
White Teachers (%)	37%	41%	50%
Average Teaching Experience (years)	15	10	13
Teachers with Masters Degrees (%)	35%	20%	29%

2.2 Data Collection Instruments

Two instruments were used for collecting relevant data for the study. The Stanford Achievement Test-10th Edition, a national norm-referenced test, was used for the assessment of program effects on student performance levels in reading and math, while a 60-item HPC Summative Assessment Student Survey (SASS) instrument was used for the assessment of program effects on Students' Caring levels and Honesty levels, Teacher Caring levels, and Teacher Fairness levels. Students' sixth grade fall semester SASS data and sixth-grade Stanford NCE scores in reading and math were used as baseline data in the study. A factor analysis of baseline SASS data involving 4,000 students was used for the instrument's reliability assessment which yielded Cronbach alphas of between 0.7413 and 0.8679 (e.g.: Student Caring, $\alpha = 0.7514$; Student Honesty, $\alpha = 0.7413$; Teacher Caring, $\alpha = 0.8679$; and Teacher Fairness, $\alpha = 0.8437$).

Each of the factors was aggregated from multiple items from the SASS instrument. For example, the Teacher Caring factor had 10 SASS items including the following: Teachers in this school really care about me; Teachers encourage students to be friendly and kind to each other; Teachers in this school do not give up on students and do the best they can to help all students to succeed; Teachers try their best to protect and defend students who are picked on by others; Teachers do not get angry or rude when students make mistakes; Teachers listen to students' ideas, even if they don't agree with them; and Teachers treat parents with respect.

2.3 Data Analyses

If the evaluation design had used a random assignment of subjects' framework, the high sample mortality rates among the participating schools could have undermined the integrity of the study. But with the use of a matched-pairs design, the integrity of the findings remained strong, even though the findings could not be generalized to the entire baseline population of students. The findings could be based on the students in each of

the participating schools who had all the required data. And, to ensure that minor baseline differences between the matched-pairs intervention students and the comparison group students were eliminated, an Analysis of Covariance (ANCOVA) model was used, which facilitated an assessment of program effect sizes, and the subsequent conversion of effect sizes into percentile values.

3. Implementation of the HPC Model

3.1 The HPC Program

The Houston Partnership for Character Model was a comprehensive school-based character education program that used a collaborative framework involving school administrators, teachers, parents, and the entire "village" of leaders, higher institutions, and business organizations in the community. Major components of the model included: a 6-Step Character Infusion Process; school-wide display of character-values' banners and other artifacts in strategic locations; Writer Trainers, who trained teachers and facilitated the full implementation of the classroom infusion process; a University Trainer, who trained pre-service teachers in participating local universities; a Parent Trainer, who trained and engaged parents; and a Character Education Coordinating Board (CECB) that oversaw, not only the needs of the program, but also the campus-based Character Education Advisory Councils in all of the participating schools.

The 6-Step Character Infusion Process involved the: (1) identification of the district mandated instructional objectives; (2) linking of the targeted objective to real world experiences of the students; (3) selection of a pertinent core/character value; (4) determination of the relevance of the selected core value to one or more of the following: business/economics, politics, society, environment, etc.; (5) selection of an instructional strategy capable of engaging the attention and participation of the students; and (6) summarization of the mandated instructional objective and assessment of the extent to which the objective was achieved. The process was not an additional curriculum but rather a practice that allowed teachers to spend some time helping students to internalize character values as an integral part of daily instruction. The process enabled teachers to infuse character values such as: honesty, respect, caring, trust, and fairness into instructional activities. It facilitated enhanced student engagement, group discussions, role playing, problem solving, and required teachers to demonstrate these values in their dealings with students.

3.2 HPC Implementation

All of the teachers in each of the program schools participated in the HPC's Character Infusion Workshops during the first year. There was also full teacher participation in follow-up refresher sessions during the second year. Post assessments of the teacher workshops showed considerably high levels of teacher knowledge about character education and the infusion process. With an overall average rating of 3.5 (on a Likert Scale of 0-4), teachers in participating schools indicated high levels of confidence in their ability to implement the program in their schools and classrooms (HPC-MS-1, 3.3; HPC-MS-2, 3.6). Ninety one percent of the teachers rated the sessions as effective, with an overall effectiveness rating of 3.63, (based on a 4-point scale), the training sessions were also perceived to be very effective.

In support of the teacher training sessions and school-based infusion efforts, the program's Parent-Trainer also worked with parents and organized workshops to increase parental involvement and improve parental confidence and support of the program. For two years, the participating teachers integrated the 6-Step Character Infusion process into their instruction. One of the program's middle school math teachers described how he

integrated two character values, "honesty" and "trust", into his math class on "interest rates". After he had discussed the technical aspects of how interest rates are calculated, he explained to his students how the rate of interest banks charge on car loans and home mortgage loans vary from one loan recipient to another. He went on to explain how the rate is based on an individual's credit report/rating, of which people who are honest and can be trusted with honoring their promises in paying bills regularly and on time (i.e. people with good credit) receive lower interest rates, while those who do not pay their bills on time or fail to pay their bills (i.e., people with bad credit) receive higher interest rates on their loans.

The teacher then provided a scenario where two loan seekers, one with good credit, and the other with bad credit obtained home mortgage loans of the same amount but the one with good credit received a much lower interest rate than the rate received by the person with bad credit. The students were later instructed to calculate the monthly payment amounts of the two loan recipients, and were stupefied by the realization that the person with bad credit would pay over $100,000 more than the person with bad credit, by the end of the 30-year loan payment period. It then dawned on the students how being honest, trustworthy, and responsible in ones dealings with others, provide tangible rewards and benefits. The teacher went on to describe how his class was so enlivened and engaging that one student who hardly talked in class revealed to the class how he then understood why his mother had instructed him to obtain the family home phone in his name, rather than hers, because of her bad credit record.

HPC's Writer-trainers visited the classrooms of participating teachers to observe the implementation of the HPC's 6-Step Character Infusion Process/instructional strategies. By the end of the second year, 70% of the targeted teachers had been observed and rated on a 3-point scale (1 = Poor; 2 = Average; and 3 = Master Teacher) to determine teachers who needed extra training support or instructional modeling. In the 1st year, the 6th grade teachers and classrooms were targeted, while in the 2nd year the 7th grade were targeted. An end-of-year survey of the effectiveness of the follow-up support services revealed high ratings among the participating schools of between 64% and 90%. An end-of-year survey of the HPC teachers in spring 2008 further indicated a high level of integration of CE instructional strategies into daily lessons (i.e.: HPC-MS-1, 64%; HPC-MS-2, 78%). In effect, the implementation of the program was substantively effective, with the infusion of character values in daily instruction, and the creation of visual effects through banners and posters on classroom, gym, cafeteria, and hall-way walls.

4. Findings

4.1 School Environmental Quality: Program Effects on Teachers

As a school-based program that hinges on the ability and willingness of teachers to model the targeted character values and also integrate the values into classroom instruction, an assessment was made to determine the extent to which students had seen changes in their teachers' Caring levels, and Fairness levels. As discernible from Table 2, the Caring levels of teachers in the two intervention schools were substantially higher than they were in the comparison school.

The differences were statistically significant for the two HPC schools, and reflected effect sizes of 0.10 (HPC-MS-2) and 0.54 (HPC-MS-1) for Caring levels and 1.00 (HPC-MS-2) and 0.74 (HPC-MS-1) for Fairness (Cohen, 1988). The conversion of the effect sizes into percentile values demonstrated the magnitude of HPC impacts as indicated by HPC's average scores of 54th (HPC-MS-2) and 71st (HPC-MS-1) percentiles for Caring and 71st (HPC-MS-1) and 84th (HPC-MS-2) percentiles for Fairness, compared to the 50th percentile for Caring

and Fairness levels of teachers in the comparison school.

Table 2 ANCOVA Comparison Between Teachers in HPC and Comparison Schools: Caring and Fairness Levels (2006–08)

School (Group Size)	Value	Pre-Test Mean	Pre-Test Std. Dev	Post-Test Std. Dev	Adjusted Post-Test Mean	F	P-Value	Effect Size	HPC Mean Percen-tile**
HPC-MS-1 (102)	Caring	54.85	6.97	9.15	55.77	15.71*	0.000	0.54	71
Comp-MS (102)		54.02	8.21	12.16	50.01				
	Fairness	53.78	8.35	8.49	56.63	27.59*	0.000	0.74	77
		51.73	8.88	13.77	48.18				
HPC-MS-2 (108)	Caring	52.90	9.76	9.05	50.20	38.96*	0.000	0.10	54
Comp-MS (108)		51.90	11.16	12.15	49.08				
	Fairness	50.16	9.7	8.16	58.73	53.91*	0.000	1.00	84
		52.37	10.36	13.60	47.50				

Note: * Significant: $p < 0.05$; ** The average post-test score of the Non-SLC group was equated to 50th percentile in order to determine the percentile position of the average score of the HPC groups.

4.2 Changes in Students' Character Values

As shown in Table 3 the HPC students gained substantially in levels of Caring and Honesty, relative to the levels that were achieved by students in the comparison school. These gains by students in the two HPC schools indicated statistically significant differences in levels of Caring and Honesty that could be attributed to the HPC program. The impact of the program on the two character values enabled HPC-MS-1, for example, to achieve effect sizes of 0.41 in Caring levels, and 0.59 in Honesty levels, while HPC-MS-2 achieved effect sizes of 0.64 in Caring levels, and 0.72 in Honesty levels. All of the HPC schools therefore achieved higher percentile levels than their comparison school's 50th percentile values for both Caring and Honesty.

Table 3 ANCOVA Comparison between Students in HPC and Comparison Schools: Student Caring & Honesty Levels (2006–08)

School (Group Size)	Value	Pre-Test Mean	Pre-Test Std. Dev	Post-Test Std. Dev	Adjusted Post-Test Mean	F	P-Value	Effect Size	HPC Mean Percen-tile**
HPC-MS-1 (102)	Caring	53.13	8.72	11.64	55.23	17.27*	0.000	0.41	66
Comp-MS (102)		54.22	8.45	14.52	49.81				
	Honesty	52.49	8.41	9.16	53.93	19.74*	0.000	0.59	72
		53.15	8.93	12.22	47.52				
HPC-MS-2 (108)	Caring	52.72	10.36	11.08	57.88	23.70*	0.000	0.64	74
Comp-MS (108)		51.89	11.90	14.43	49.65				
	Honesty	52.98	10.73	9.00	55.06	30.55*	0.000	0.72	76
		51.04	11.70	12.15	47.41				

Note: * Significant: $p<0.05$; ** The average post-test score of the Comparison group was equated to 50th percentile in order to determine the percentile position of the average score of the HPC groups.

4.3 Program Impact on Student Achievement

As evident in Table 4, all of the HPC schools outperformed their comparison peers. The performance differences were statistically significant ($p < 0.05$), with effect sizes between 0.20 and 0.45, and percentile values ranging from 8 percentile units (HPC-MS-2, 58th in Reading) to 17 percentile units (HPC-MS-1, 67th in math), higher than that of the comparison group.

Table 4 ANCOVA Comparisons between HPC & Non-HPC Students Stanford Achievement Test-Reading & Math (2006–07 & 2007–08)*

Middle Sch. (Group Size)	Subject Area	Pre-Test - Mean	Pre-test S. D.	Post-Test - Mean	Post-Test S. Dev.	Adjusted Post-Test Mean	F	P-Value	Effect Size	HPC Mean Percentile**
HPC-MS-1(102)	Reading	40.00	14.19	53.12	13.35	54.39	17.84*	0.000	0.45	67
C-MS (102)		42.77	16.33	49.08	14.92	47.79				
	Math	50.70	16.69	61.96	16.26	61.76	16.02*	0.000	0.25	60
		50.29	13.41	57.81	13.20	58.01				
HPC-MS-2(108)	Reading	40.17	14.27	49.55	13.05	50.27	13.20*	0.000	0.20	58
Comp-MS(108)		41.74	16.28	48.13	14.88	47.41				
	Math	47.46	13.88	59.91	13.59	60.93	17.44*	0.000	0.35	64
		49.53	14.05	57.09	13.83	56.08				

Note: * Significant: $p < 0.05$; ** The average post-test score of the Comparison group was equated to 50th percentile in order to determine the percentile position of the average score of the HPC groups.

5. Discussion

This study revealed the substantive effectiveness of the Houston Partnership for Character program in generating: (1) improvements in teachers' Caring and Fairness levels; (2) improvements in students' character values (i.e., Caring and Honesty); and (3) improvements in student achievement in reading and math. The teachers in both HPC program schools achieved significantly higher Caring and Fairness scores than their matched comparison peers. And, with such teacher improvements, it seems unsurprising that students in the HPC program schools achieved higher Caring and Honesty percentile scores than their matched comparison peers, with statistically significant score differences also in reading and math. These findings demonstrate a strong and pervasive association between character education programming and student achievement, as has been previously observed by many educators (Etzioni, 2008; Tully, 2009).

The incremental validation that the two program schools add to the demonstrated effectiveness of Houston's character values program is substantive. In addition, the fact that these two schools achieved higher performance levels than their comparison school lends credence to the great potential that character values education has in enhancing student achievement. Educators in urban schools with significant achievement challenges may carefully consider adopting values education models such as the Houston Partnership for Character program. Even though the case for schools to assume the responsibility for infusing character values in the youth of today has been advocated by many concerned educators in recent years, the leaders of the nation's schools have seemingly not given the issue much attention. As observed by Tony Sanchez, we "cannot expect our students to develop good character through wishful thinking or hope that someone else will do it"…. otherwise "the media will continue to step forward as the most influential institution" in the development of character values of the nation's youth (Sanchez, 2004).

Acknowledgements

The authors are grateful to the principals of the participating schools for enabling the collection of all pertinent data for this study. The authors also thank the staff of the Houston ISD Character Education Department for their contributions to this study. Even though the generation of items and scenarios for the character values survey instruments was a collaborative effort between the researcher and the program staff, the ideas were based on ideas from books, past conference presentations, articles, and surveys on character education; and to all who were the original sources of those ideas, the authors are thankful. This evaluation was funded by the U.S.

Department of Education through the Partnerships in Character Education Program (Grant Award Number: Q215S060006).

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