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What is This?

The Effects of Privileging Moral or Performance Character Development in Urban Adolescents

Scott Seider[1], Sarah Novick[1], and Jessica Gomez[1]

Abstract
This study compared the effects of emphasizing moral character development or performance character development at three high-performing, high-poverty urban middle schools. Performance character consists of the qualities that allow individuals to regulate their thoughts and actions in ways that support achievement in a particular endeavor. Moral character consists of the qualities relevant to striving for ethical behavior in one's relationships with other individuals and communities. Using a quasi-experimental research design, the authors found that early adolescents attending a school emphasizing moral character development through ethical philosophy programming demonstrated significantly higher levels of integrity over the course of the 2010 to 2011 academic year than their peers at two matched comparison schools (N = 544). However, the early adolescents attending the comparison schools—which emphasized performance character development through advisory programming—demonstrated significantly higher levels of perseverance and community connectedness over the course of the academic year. These divergent outcomes across the three schools offer useful implications to educators, researchers, and policy-makers about the different effects of privileging a particular dimension of character education.

Keywords
character development, middle school, moral character, performance character, ethics, advisory

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Character development has been a goal of the American education system since its inception. Two of the founding fathers of American education, Thomas Jefferson and Horace Mann, regarded universal public education as a lever for instilling in children values such as respect, loyalty, and self-discipline necessary to develop into productive workers and citizens (McLellan, 1999). Over the past decade, several high-performing charter school networks have taken up character development as a key lever in promoting student success. For example, the Knowledge is Power Program (KIPP)—a charter school network of 109 schools in 20 states—proclaims that "the development of character has been as important to us as the teaching of rigorous academic skills" and that the development of character strengths such as self-control, optimism, curiosity, and grit are "necessary for the success of our students in college and life." (KIPP Character and Academics, 2012). Other leading charter school networks such as Achievement First describe their mission as "providing students with the academic and character skills they need to achieve at high levels" (Achievement First, 2012).

Character can be defined as "a set of psychological characteristics that motivate and enable individuals to function as competent moral agents" (Berkowitz & Hoppe, 2009, p. 132). While scholars have historically focused on the "moral" dimension of this definition (e.g., Lickona, 1989; Narvaez, 2002; Noddings, 2002), Davidson, Khmelkov, and Baker (2011) call for equal emphasis to be placed upon the dimension of "competence" within the definition. Specifically, these scholars conceptualize character in terms of both moral character and performance character dimensions.

Performance character refers to qualities that allow individuals to regulate their thoughts and actions in ways that support achievement in a particular endeavor (Character Education Partnership [CEP], 2008; Duckworth & Seligman, 2005; Lickona & Davidson, 2005). Examples of such qualities include perseverance, self-efficacy, and ingenuity. Moral character, on the other hand, consists of the qualities relevant to striving for ethical behavior in one's relationships with other individuals and communities (Noddings, 1988, 1994; Walker & Pitts, 1998). Examples of moral character strengths include empathy, integrity, and social responsibility. In distinguishing between moral and performance character strengths, Berkowitz and Puka (2009) have noted that performance character strengths such as perseverance and ingenuity are neither intrinsically good nor bad but rather "derivative of the ends toward which they are applied" (p. 108). In contrast, moral character strengths such as integrity and social responsibility can be understood as "interpersonal ethical imperatives" that are intrinsically good independent of context (p. 108).

In the present report, we present data from three charter middle schools highly similar to those in the KIPP and Achievement First networks that

reveal the disparate effects of emphasizing moral character development or performance character development. Specifically, two of the schools promote students' performance character development through advisory programming (henceforth referred to as "advisory") while the third school has chosen to emphasize moral character development by replacing advisory with ethical philosophy programming. By comparing the effects of these different emphases upon participating students' academic integrity, community connectedness, courage, ethical identity, perseverance, and social responsibility, we seek to offer useful insights to researchers, educators, and policy-makers about the effects of different types of character education programming upon participating early adolescents. Because our analyses found significant differences across the three schools in terms of students' shifts in perseverance, academic integrity, and community connectedness, we report next on the extant research literature on these three distinct character strengths.

Perseverance and Performance Character

As noted, the character education programming at KIPP, Achievement First, and several other charter school networks has focused primarily upon performance character because the extant research literature reveals a robust relationship between achievement across a variety of domains and performance character strengths such as perseverance and self-discipline (e.g., Duckworth & Seligman, 2006; Duckworth, Peterson, Matthews & Kelly, 2007; Howe, 2001; Terman, 1947; Winner, 1997). Perseverance can be defined as persistence in a state, enterprise, or undertaking despite difficulties, delay, failure, or opposition (Merriam-Webster, 2012). Both Terman (1947) and Winner's (1997) studies of gifted children revealed perseverance to be a stronger predictor than intelligence of success in adulthood, as did Howe's (2001) historical research on the trajectories of Darwin, Einstein and other geniuses. Likewise, a number of scholars have found in studies of world-class artists, athletes, chess players, mathematicians, and neurologists that a key commonality across these high achievers is a willingness to engage in sustained and deliberate practice (Bloom, 1985; Ericsson, Krampe, & Tesch-Romer, 1993; Simon & Chase, 1973).

Highly similar to perseverance, self-discipline can be defined as an individual's ability to delay gratification in the service of pursuing a higher goal (Duckworth & Seligman, 2006). At the university level, Wolfe and Johnson (1995) reported that self-discipline was the only one of 32 character traits that predicted college students' grade point averages more accurately than did their SAT scores. Likewise, Hogan and Weiss's (1974) study of undergraduates inducted into the Phi Beta Kappa honors society revealed that self-discipline was the primary character strength distinguishing these inductees from nonhonors students of equivalent intellectual ability.

Perhaps most relevant to this study is recent scholarship by Duckworth and colleagues (2005, 2006, 2007) on self-discipline amongst U.S. middle school students. Specifically, Duckworth and Seligman (2005, 2006) found in several studies of eighth-grade students that self-discipline was a stronger predictor than IQ of students' academic grades, school attendance, hours spent doing homework, and acceptance into highly competitive high schools. According to these scholars, examples of school-related tasks requiring self-discipline include prioritizing homework over watching television and persisting on long-term assignments despite boredom and frustration. In this study, we considered whether differences in perseverance and persistence emerged among the student bodies of several highly similar charter middle schools that prioritize performance character development and moral character development respectively.

Academic Integrity and Moral Character

The present study also compared the student bodies of participating schools in terms of their commitment to academic integrity. Academic integrity can be defined as a commitment to honesty in one's work through avoidance of behaviors such as cheating and plagiarism (Ghaffari, 2008; Kisamore, Stone, & Jawahar, 2007). A robust body of evidence suggests that many American adolescents and young adults engage frequently in both types of behavior (McCabe, 2005; Miller, Murdock, Anderman, & Poindexter, 2007; Miller, Shoptaugh, & Woodridge, 2011; Stephens & Nicholson, 2008). Drawing on data from several large-scale studies, Steinberg (1996) reported that two thirds of American middle school students reported cheating on a test in the past year, and 90% admitted to having copied another student's homework. Likewise, Evans and Craig (1990) found that more than 60% of middle school students perceived cheating to be a serious problem in their school. Such findings—combined with even higher rates of cheating in American secondary schools (McCabe, Trevino, & Butterfield, 2001; Strom & Strom, 2008)—are particularly concerning in light of research by the Josephson Institute of Ethics (2009) that found that individuals who had cheated on tests as teenagers were twice as likely as noncheaters to be dishonest in their professional lives and 50% more likely to lie to their spouses or cheat on their taxes.

Researchers have found that youth become more likely to engage in cheating behaviors as they transition from elementary school to middle school, and explanations for this shift have been attributed to the the increasing importance placed on academic marks by students' parents and teachers, heightened competition among classmates, and more superficial relationships with teachers (Anderman, Griesinger, & Westerfield, 1998; Murdock, Hale, &

Weber, 2001). Support for this explanation can be found in research that has found higher levels of cheating among adolescents who report worrying about their performance on tests and examinations (Rost & Wild, 1990); in schools that emphasize competition and grades (Middleton & Midgley, 1997; Stephens, 2005); and in classrooms where students perceive the teacher to be incompetent, uncaring, or unfair (Calabrese & Cochran, 1990; Evans & Craig, 1990). Other researchers have found that engagement in cheating (and other antisocial behaviors) relate negatively to an individual's ability to engage in moral reasoning (Carlo, Koller, & Eisenberg, 1998; Fabes, Carlo, Kupanoff, & Laible, 1999; Kohlberg, 1975; Kohlberg & Candee, 1984).

In terms of efforts to strengthen the academic integrity of young people, Stearns (2001) found that students are less likely to engage in dishonest behaviors in classes where they perceive the instructor to be skilled, fair, and caring in his or her teaching practices. Braumoeller and Gaines (2001) reported that cheating behavior diminished significantly in classes in which the instructor announced at the outset of the course that he/she would be using plagiarism-detection software. Stephens (2005) found that secondary students are less likely to cheat in classes in which the instructor emphasizes mastery goals (i.e., learning the course content well) over performance goals (i.e., earning a good grade for the course). Other researchers have found that developing an honor code (McCabe & Trevino, 1997) and involving students in resolving cases that violate this honor code (Wangaard & Stephens, 2011) have a positive effect upon students' commitment to acting with academic integrity. In the present study, we considered the effects upon students' academic integrity of attending a charter school emphasizing moral character development through ethical philosophy programming in comparison to their peers at two highly similar charter schools with character education programming focused on students' performance character development.

School Connectedness

Also relevant to the present study is the extant research literature on school connectedness. School connectedness refers to the sense of acceptance, respect, support, and caring that a student experiences in the school context (Juvonen, 2007). In terms of the effects of such connectedness, Benninga and colleagues (2003) have reported that children attending schools that effectively promote a caring community and positive social relationships score higher on state achievement tests than their peers in less cohesive school communities. Likewise, McClure, Yonezawa, and Jones (2010) have reported that, in a study of 10,000 high school students in 14 different California high schools, students' sense of school connectedness was a significant predictor

of their grade point averages and scores on statewide English/Language Arts assessments. These findings parallel earlier scholarship which has found significant relationships between the academic achievement of both middle and high school students on state assessments and these students' reports of caring relationships at school (Hanson, Muller, Austin, & Lee-Bayha, 2004). Other scholars have found students' school connectedness to be predictive of higher educational motivation, classroom engagement, and better attendance (Blum & Libbey, 2004; Roeser, Midgley, & Urdan, 1996; Wentzel, 1997).

At the middle school level, many school leaders utilize advisory groups as a mechanism for strengthening students' sense of school connectedness (Shulkind, 2007). Advisory groups are structures in which an adult and a small group of students meet regularly to provide these students with both academic and social-emotional support (Galassi, Gulledge, & Cox, 1997). Scholars have found advisory programs to be associated with an increased sense of trust and belonging on the part of students (Ziegler & Mulhall, 1994), increased levels of positive peer support (Ayres, 1994), and improved relationships between students and teachers (Espe, 1993; Totten & Nielson, 1994). As is explained in greater detail below, two of the schools in the present study—Collegiate Bound and Civitas Prep—seek to promote students' performance character development and community connectedness by engaging students in weekly advisory programming while the third school—Classical Academy—has chosen to replace the weekly advisory session with ethical philosophy programming focused on students' moral character development.

Ethical Philosophy Programming

Classical Academy is not the first primary or secondary school to turn to ethical philosophy as a tool for promoting student development. However, the research evaluating these efforts has focused primarily upon the ability of philosophy programming to promote students' academic skills such as critical thinking (e.g., Camhy & Ibeer, 1988; English & Foster, 1996; Garcia-Moriyon, Rebollo, & Colom, 2005; Lipman, 1984, 1988; Strong, 2004). A few studies have found that infusing ethics or philosophy into secondary-level courses on world history (Pass & Willingham, 2009), economics (DeHaan, Hanford, Kinlaw, Philler, & Snarey, 1997; Niederjohn, Nygard, & Wood, 2009), and Biology (Barden, Frase, & Kovac, 1997) increased students' understanding of ethical issues and engendered a greater commitment to acting in an ethical manner.

The present study sought to build upon these earlier efforts by considering the relationship between middle school students' moral character development

and their participation in yearly, stand-alone ethical philosophy coursework. We compared the character development of middle school students participating in the ethical philosophy programming at Classical Academy Charter School to their peers participating in the advisory programming at the nearby Collegiate Bound and Civitas Preparatory charter schools (Pseudonyms are used for all of the schools involved in this study). Our hypothesis was that Classical Academy's replacement of weekly advisory programming with ethical philosophy programming would have a significant positive effect upon participating students' moral character development and a negative effect on their performance character development in comparison to peers at two highly similar urban charter schools. Specifically, we predicted that Classical Academy students would demonstrate significant gains over the course of the 2010 to 2011 academic year in moral character strengths such as academic integrity, ethical identity, and social responsibility while the emphasis on performance character development and community building at Collegiate Bound and Civitas Prep through their respective advisory programs would lead students at these schools to demonstrate significant gains in community connectedness, courage, and perseverance.

Method

Participants

This study's participants were 653 middle school students (Grades 6-8) between the ages of 10 and 14 years old attending the Classical Academy, Collegiate Bound and Civitas Preparatory charter schools in a large northeastern city. The summary statistics for these students in terms of participants per school, gender, and race/ethnicity are presented in Table 1 below. In terms of participants per school, the 189 participants from Classical Academy—the school offering ethical philosophy programming—represented 90% of the school's 209 middle school students. Similarly, at the two schools offering advisory programming focused on performance character development, the 231 participants from Collegiate Bound represented 95% of the school's 244 middle school students, and the 233 participants from Civitas Prep represented 94% of the school's 249 middle school students. As described in greater detail in the section on data collection below, these high participation rates were due in large part to the in-class administration of surveys and an "opt out" consenting procedure. The 13 to 20 students at each school who did not participate in the study were students who were absent from school on the day the surveys were administered.

Table 1. Summary Statistics for Classical Academy, Collegiate Bound, and Civitas Preparatory Middle School Students by Gender and Race/Ethnicity.

		Gender		Race/ethnicity			
	N	Male	Female	Black	Latino	White	Multiracial
Classical Academy	189	92 (50%)	91 (50%)	116 (62%)	43 (23%)	5 (2%)	25 (13%)
Collegiate Bound	231	100 (44%)	129 (56%)	112 (49%)	91 (40%)	0 (0%)	28 (11%)
Civitas Preparatory	233	109 (48%)	120 (52%)	135 (58%)	31 (13%)	44 (19%)	24 (10%)

In terms of socioeconomic status, 73% of Classical Academy students qualified for free or reduced price lunch as compared to 76% of Collegiate Bound students and 54% of Civitas Prep students. In terms of academic achievement, on the 2011 high-stakes assessment in which eighth graders at all three schools participated, 90% of Classical Academy eighth graders scored advanced or proficient on the English/Language Arts assessment, as compared to 93% of Collegiate Bound eighth graders and 97% of Civitas Prep eighth graders. Likewise, 78% of Classical Academy eighth graders scored advanced or proficient on the math assessment, as compared to 84% of Collegiate Bound eighth graders and 60% of Civitas Prep eighth graders. These figures are both comparable to each other and also significantly higher than the percentages of students scoring advanced or proficient on these exams citywide and statewide.

As is evident both in Table 1 and the preceding discussion, the student bodies of Classical Academy, Civitas Prep and Collegiate Bound are similar in terms of gender, race/ethnicity, academic achievement, and socioeconomic status. Chi square tests revealed no significant differences across the three schools in terms of gender ($\chi^2 = 1.84$, $df = 2$, $p = .398$); academic achievement ($\chi^2 = 3.59$, $df = 2$, $p = .166$) or the attrition rate of participants over the course of the study ($\chi^2 = .397$, $df = 2$, $p = .820$). However, there were significant differences across the three schools in terms of socioeconomic status ($\chi^2 = 29.6$, $df = 6$, $p < .001$) and race/ethnicity ($\chi^2 = 99.6$, $df = 6$, $p < .001$), with Civitas Prep—one of the schools offering performance-oriented advisory programming—including within its student body a greater proportion of White students and a lower proportion of low-income students than the other two schools. The potential effects of these differences upon this study's findings are taken up in the discussion.

Participating Schools

Charter schools are publicly funded schools that are supervised by state boards of education rather than a local superintendent or school committee (Angrist, Dynarski, Kane, Pathak, & Walters, 2010). The three charter schools in the present study are located within 10 miles (16.09 km) of each other in the same large northeastern city, and all three admit students from any neighborhood in the city via a randomized registration lottery. The three schools share a number of other important similarities as well. Similar to the KIPP and Achievement First charter networks referenced in the *Introduction*, all three middle schools in the present study adhere to a "No excuses" approach to teaching and learning. The term "No excuses schools" was coined by Samuel Casey Carter (2000) to describe high-poverty public schools featuring a strict disciplinary environment, extended time in school, and an intensive focus on traditional reading and mathematics skills. In alignment with these principles, all three schools in the present study feature an extended school day and year, require school uniforms, focus intensively upon math and reading skills, utilize a behavior system based upon demerits and merits, and issue weekly progress reports to communicate with parents about students' behavioral and academic outcomes. Additionally, all three schools characterize their mission as preparing student for college, list integrity, and perseverance among their core values, and hold weekly community meetings in which students exemplifying these core values are publicly recognized and celebrated. These similarities across the three schools are not solely the result of their common ideological foundations. Rather, Classical Academy—the school featuring ethical philosophy programming—cites in its 2004 charter application the founding team's goal of modeling the school upon the curriculum, academic standards, disciplinary system, and budgeting practices established at Civitas Prep and Collegiate Bound.

Character Education Programming

As noted above, the most notable difference across the three schools is their approach to character education. Specifically, middle school students at Civitas Prep and Collegiate Bound participate in a weekly advisory course that focuses on a combination of community building and academic support while Classical Academy has chosen to replace this advisory course with weekly programming in ethical philosophy. Here, we offer brief descriptions of these schools' varied character education programming.

One of the central curricular objectives of Collegiate Bound's advisory programming is that "students will understand the value of persevering in the

face of challenges." To address this objective, sixth-grade students watched and discussed a 2010 graduation speech delivered by President Barack Obama at Kalamazoo (MI) Central High School in which the president offered numerous examples to underscore his central idea that "lasting success doesn't happen in an instant." In another advisory lesson, students watched and discussed a Nike commercial featuring basketball star Michael Jordan in which Jordan described the ways in which his successes were built upon his failures. Before the comprehensive exams at the end of the first trimester, sixth-grade students listened to a talk in advisory from a Collegiate Bound eighth grader about *how* to study for their exams. A subsequent advisory lesson focused on helping students develop a study schedule for these comprehensive exams; and a third advisory lesson provided students the opportunity to share with each other different strategies for preparing for their exams. Each of these activities is indicative of the extent to which Collegiate Bound utilized advisory programming as an opportunity for students to work together on the qualities necessary to maximize their academic performance.

The weekly advisory programming at Civitas Prep is also divided evenly between the goals of performance character development and community building. Every other week Civitas Prep middle school students receive progress reports detailing their academic performance in each of their academic courses as well as the number of demerits, "tardies" and absences over the preceding two weeks. Students then meet individually with their advisory teacher to develop a plan for maintaining their performance in the classes in which they are thriving and improving their performance in the classes in which they are struggling. On the alternate weeks, Civitas Prep advisors utilize their advisory time to work with advisees on study-skills strategies for improving their academic performance (e.g., revision, proofreading); discuss disputes and conflicts with which the class community is contending; and engage in lessons similar to those described in the preceding paragraph at Collegiate Bound that are explicitly focused on strengthening perseverance and self-discipline. For example, one advisory lesson at Civitas Prep featured a fable about a young Japanese boy who demonstrated the persistence to move a mountain shovelful by shovelful because the mountain was blocking the sun's rays from reaching his garden; students then discussed the relevance of this extended metaphor to their own lives. Through lessons such as this one, Civitas Prep also strives to utilize advisory programming to offer students concrete strategies for improving their academic performance as well as the motivation to hone performance character strengths such as perseverance that are highly correlated with student success.

Similar to their peers at Collegiate Bound and Civitas Prep, Classical Academy students also meet each week in small groups of 10 to 12 students with a faculty or staff member. Rather than lessons designed to strengthen students' performance character, however, Classical Academy students engage in a weekly ethical philosophy lesson that introduces students to moral character strengths such as integrity and compassion through the writings of Aristotle, Mahatma Gandhi, W.E.B. Du Bois and others. At each grade level, students are introduced to increasingly complex perspectives on these moral character strengths. For example, in the sixth grade, students learn that integrity means to tell the truth whereas seventh graders learn that integrity means to take responsibility for one's actions. One of the seventh grade lessons on integrity entailed reading an excerpt from Gandhi's memoir in which he described stealing a watch from his older brother, but then made the decision to take responsibility for his actions by confessing the theft to his father. Following the reading, students offered examples from their own lives in which they had and had not taken responsibility for their actions, and described steps they had taken (or should have taken) to demonstrate integrity. Through lessons such as this one, Classical Academy seeks "to help students understand their role in society and to share their own moral principles."

These descriptions of the character education programming at the three schools in the present study reveal a clear distinction between, on one hand, the performance character emphasis in the advisory programming of Collegiate Bound and Civitas Prep and, on the other hand, the moral character emphasis in the ethical philosophy programming at Classical Academy. We believe the design of the present study can be characterized as quasi-experimental in that we are comparing the effects of two distinct approaches to character education at several urban charter middle schools located in the same city featuring highly similar curricula, standards, disciplinary practices, core values, test scores, and student bodies, and to which students have been admitted via random lotteries.

Data Collection

Students at all three schools completed surveys in the opening week of the 2010 to 2011 school year (Time 1) and then completed a similar survey at the conclusion of the academic year in June of 2011 (Time 2). Across the three schools, 653 students completed the Time 1 survey and 544 of these students completed the Time 2 survey. In terms of the attrition across each school, 189 Classical Academy students completed the initial survey and 160 of those students completed the follow-up survey. Two hundred and

thirty-one Collegiate Bound students completed the initial survey, and 182 of those students completed the follow-up survey. Finally, 233 Civitas Prep students completed the initial survey, and 199 completed the follow-up survey. The attrition of 25 to 50 participants at each school between Time 1 and Time 2 can be explained by a combination of students having left their respective schools midyear as well as absenteeism on the school day in which the Time 2 survey was administered. The percentage of students completing *both* the initial and follow-up surveys at Classical Academy, Collegiate Bound and Civitas Prep represented 77%, 75%, and 80% of each school's respective populations of middle school students. As reported earlier, a chi square test revealed no significant differences across the three schools in terms of the attrition rates of participants over the course of the study ($\chi^2 = .397$, *df* = 2, *p* = .820).

The administered surveys consisted of items adapted from measures that aligned with core values cited by Classical Academy, Collegiate Bound or Civitas Prep: community, courage, ethical identity, integrity, perseverance, and social responsibility. Integrity and perseverance were cited as core values at all three schools. Drawing upon Berkowitz and Puka's (2009) distinction between moral character strengths as "interpersonal ethical imperatives" and performance character strengths as "derivative of the ends toward which they are applied," one might characterize ethical identity, integrity, and social responsibility as moral character strengths and community, courage, and perseverance as performance character strengths. A description of each measure is offered below.

At both Time 1 (September 2010) and Time 2 (May 2011), surveys were administered to students during their advisory or "homeroom" periods. Because this study involved an assessment of existing curricular interventions, the principal investigator's human subjects review board allowed for participants to opt out of the study rather than requiring parental permission forms for each participant. Prior to beginning the survey, students read an introductory paragraph written in language accessible to early adolescents inviting them to participate in a research study designed to learn more about how young people think about "important ideas related to citizenship" within a school community. This introductory paragraph emphasized that participation in the study was voluntary; that students could withdraw at any time; that their responses would be confidential and not shared with their teachers or administrators; and that participating students would receive a US$10 gift card to a local bookstore. Students were invited to ask a member of the research team or their respective homeroom/advisory teachers any questions that would clarify these points.

Measures

As noted in the preceding section, the survey tool completed by study participants included six different measures—academic integrity, ethical identity, social responsibility, courage, perseverance, and community—that had been adapted from previously validated scales. The items comprising these measures solicited students' agreement or disagreement to a given statement along a 5-point Likert-type scale in which a "1" represented *strong disagreement* and a "5' represented *strong agreement*. We describe each of these measures in greater detail below. The questionable reliabilities of the courage and community measures are addressed further in the *Discussion*.

Academic Integrity. This study's academic integrity measure consisted of four Likert-style items adapted from Stephens, Young, and Calabrese's (2007) *Academic Motivation and Integrity Survey* (Moral Disengagement Subscale). These items solicited students' agreement along a 5-point Likert-type scale with several statements regarding their willingness to engage in cheating or dishonest behavior if other members of the class were cheating, the teacher was a poor instructor, to keep a friend from failing, or to earn a grade of "A." Exploratory factor analysis (promax rotation) with these items resulted in one factor with an eigenvalue greater than one (eigenvalue = 2.28) accounting for 57% of the variance and showing acceptable internal consistency reliability (Cronbach's α = .74).

Ethical Identity. This study's ethical identity measure consisted of four items adapted from Bock, Giebel, Grundtner, and Rode's (2008) *Aristotelian Ethical Identity Scale* that questioned students about the extent to which they conceived of themselves as a good person at home, school, and with friends. Exploratory factor analysis (promax rotation) with these items resulted in one factor with an eigenvalue greater than one (unrotated eigenvalue = 2.45), accounting for 61% of the variance and showing acceptable internal consistency reliability (Cronbach's α = .72).

Social Responsibility. This study's social responsibility measure consisted of three items adapted from Pancer, Pratt, Hunsberger, and Alisa's (2007) *Youth Social Responsibility Scale* that questioned students about the extent to which it was important to help people even if you don't get paid for it, help people who are not friends or family, and worry about issues such as poverty and the environment. EFA ([exploratory factor analysis] promax rotation) with these items results in a single factor with an eigenvalue greater than one

(eigenvalue = 2.43) resulting in 61% of the variance and showing acceptable internal consistency reliability (Cronbach's α = .70).

Courage. This study's courage measure consisted of three items adapted from Park and Peterson's (2006) *Values in Action Inventory of Character Strengths of Youth* that questioned students about the extent to which they stick up for peers being treated unfairly, try to do the right thing even if it means getting teased for it, and tell their friends when they think they're doing something wrong. EFA (promax rotation) with these items resulted in one factor with an eigenvalue greater than one (eigenvalue = 1.93) accounting for 48% of the variance and showing questionable internal consistency reliability (Cronbach's α = .66).

Perseverance. This study's perseverance measure consisted of four Likert-style items adapted from Park and Peterson's (2006) *Values in Inventory of Character Strengths in Youth*. These items solicited students' agreement with several statements regarding the extent to which they followed through on homework assignments, paid attention in class when bored, and characterized themselves as hard workers. EFA (promax rotation) with these items results in a single factor with an eigenvalue greater than one (eigenvalue = 2.29) accounting for 57% of the variance and showing acceptable internal consistency reliability (Cronbach's α = .77).

Community. This study's community measure consisted of two Likert-style items adapted from Flanagan, Cumsille, Gill, and Gallay's (2007) *Sense of Community Connectedness Scale*. These items questioned students about the extent to which there were peers and adults within their school community to whom they could turn with problems as well as the extent to which the youth and adults in the school community treated each other with respect and caring. EFA (promax rotation) with these items resulted in one factor with an eigenvalue greater than one (eigenvalue = 1.26) accounting for 54% of the variance and showing poor-to-questionable internal consistency reliability (Cronbach's α = .60).

Data Analysis

For each of the six adapted character scales described above, we carried out EFA in order to determine how many factors existed within each measure and whether the hypothesized construct was, in fact, the predominant factor. This exploration was of particular interest because although each of these measures had been adapted from previously validated scales, the low-income urban youth in the present study differed demographically from the

populations on which several of these scales had been previously tested. We also tested for internal consistency reliability for each measure using a Cronbach's α threshold of .7—a commonly established critical value for acceptable internal consistency reliability (Peterson, 1994).

Next, we fit unconditional multilevel regression models for each of these measures, with students' postintervention (Time 2) scores on these measures as the dependent variable. We then built a baseline control model by adding a number of individual-level control predictors such as gender, race/ethnicity, grade level, academic performance, demerits, and students' preintervention (Time 1) scores on the particular measure. Across the three schools, the 112 participants who had completed either the Time 1 or Time 2 survey (but not both) were excluded from the models. Additionally, the 56 participants who had not responded to one or more items for a particular measure within either the Time 1 or Time 2 survey were excluded from the model for that particular measure. We also added a school-level control predictor to account for participants being nested within particular advisory and ethical philosophy classes within their particular schools. Next, we added to the model our question predictor of interest: students' affiliation with Classical Academy and, thus, their engagement in weekly ethical philosophy programming at a school emphasizing moral character development. Finally, we tested for cross-level interactions between our within-school and within-student variables. For those measures that did demonstrate statistically significant results, we calculated effect size using Cohen's d.

Results

The descriptive statistics for students' scores on the six character strengths measures are presented in Table 2 below, and the multilevel regression models fitted for each of these six measures are presented in Tables 3 and 4 below. As the analyses reported in Tables 3 reveal, there were no significant differences ($p < .05$) among Classical Academy, Collegiate Bound and Civitas Prep students on the ethical identity, courage, or social responsibility measures. Put more simply, the middle school students engaged in ethical philosophy programming at Classical Academy and their peers engaged in advisory programming at Collegiate Bound and Civitas Prep demonstrated similar scores on each of these character measures over the course of the academic year. However, there were statistically significant differences ($p < .05$) between Classical Academy and the two comparison schools on the academic integrity, perseverance, and community connectedness measures. The descriptive statistics and fitted models for each of these statistically significant measures are reported in greater detail below.

Table 2. Summary Character Statistics (Mean, Standard Deviation) for Classical Academy, Collegiate Bound, and Civitas Preparatory Middle School Students (*n* = 541).

	Integrity		Ethical identity		Social response		Persevere		Courage		Community	
	T1	T2	T1	T2	T1	T2	T1	T2	T1	T2	T1	T2
Classical	4.56	4.49	4.05	4.00	2.97	3.93	3.89	3.58	3.66	3.69	—	3.85
Academy	(.71)	(.69)	(.75)	(.81)	(.59)	(.87)	(.86)	(.92)	(1.02)	(.91)		(.91)
Collegiate	4.64	4.39	4.19	4.08	2.98	4.02	3.95	3.77	3.63	3.64	—	4.07
Bound	(.56)	(.72)	(.75)	(.73)	(.62)	(.81)	(.81)	(.80)	(.99)	(.92)		(.81)
Civitas	4.51	4.35	4.10	4.03	3.04	3.97	3.83	3.72	3.58	3.48	—	3.97
Preparatory	(.65)	(.79)	(.85)	(.80)	(.65)	(.80)	(.81)	(.83)	(.86)	(.99)		(.81)

Integrity. The descriptive statistics related to total mean scores for academic integrity reported in Table 2 reveal that middle school students at Classical Academy, Collegiate Bound and Civitas Prep all exhibited high levels of optimism about their commitment to academic integrity at the outset of the 2010 to 2011 academic year. Specifically, on the Time 1 survey administered in September, 2010, Classical Academy students demonstrated a mean commitment to academic integrity of 4.56 on a 5-point scale; Collegiate Bound students demonstrated a mean commitment of 4.64, and Civitas Prep students demonstrated a mean commitment of 4.51. However, on the Time 2 survey administered in May, 2011, Classical Academy students demonstrated a mean academic integrity score of 4.49 while Collegiate Bound and Civitas Prep students demonstrated mean scores of 4.39 and 4.35 respectively.

The estimates and statistics of the multilevel regression model for academic integrity presented in Table 4 reveal that, after adjusting for students' Time 1 scores, Classical Academy students demonstrated a significantly stronger commitment to academic integrity (*p* = .005) over the course of the 2010 to 2011 academic year than their peers at Collegiate Bound and Civitas Prep. In other words, students at Classical Academy—the school offering ethical philosophy programming—expressed a stronger commitment, on average, to avoiding cheating or plagiarism in their academic work even if other members of the class were cheating, the teacher was a poor instructor, or engaging in such behaviors would result in higher marks. The effect of Classical Academy's ethical philosophy programming upon the integrity of participating middle school students can be characterized as a small one (Cohen's *d* = .17).

Also evident in Table 4 is that, across all three schools, being a sixth grader was a significant positive predictor of a commitment to academic integrity (*p* = .001) while receiving a high number of demerits (for misbehavior) was

Table 3. Multilevel Regression Models for the Effects of Classical Academy's Ethical Philosophy Programming Upon Participating Students' Courage, Ethical Identity, and Social Responsibility (n ethics/advisories = 31, n students = 541).

Fixed effect	Courage				Ethical Identity				Social Responsibility			
	β	SE	t	p	β	SE	t	p	β	SE	t	p
Intercept	1.74	0.33	5.31	<.001	0.44	0.40	1.10	.27	1.21	0.37	3.24	.001
Level 2												
Classical academy	0.09	0.07	1.23	.22	0.01	0.09	0.09	.93	0.18	0.11	1.64	.10
Level 1												
Time 1 scores	0.42	0.03	13.24	<.001	0.50	0.05	10.80	<.001	0.56	0.05	10.59	<.001
Gender	−0.08	0.06	−1.42	.16	0.11	0.07	1.50	.14	−0.07	0.07	−1.07	.28
African American	−0.04	0.06	−0.66	.51	0.02	0.07	0.26	.79	0.01	0.07	0.06	.96
6th grade	0.06	0.08	0.68	.49	—	—	—	—	−0.02	0.09	−0.23	.82
7th grade	0.02	0.08	0.21	.83	−0.04	0.08	−0.54	.59	−0.05	0.10	−0.52	.60
GPA	0.01	0.01	1.24	.22	0.02	0.01	4.01	<.001	0.02	0.01	−1.41	<.001
Demerits	−0.01	0.01	−1.94	.05	−0.01	0.01	−1.43	.15	−0.01	0.01	−1.75	.08
Classical × 7th grade	—	—	—	—	—	—	—	—	−0.35	0.17	−2.02	.04
Random effect	Var	SE	Z	p	Var	SE	Z	p	Var	SE	Z	P
Level 1 (r_{ij})	0.39	0.03	13.42	<.001	0.35	0.03	10.31	<.001	0.44	0.04	12.96	<.001
Level 2 (u_{0j})	0.04	0.02	1.90	.03	0.05	0.03	1.75	.04	0.06	0.02	2.43	.007
−2LL		949.5				622.2				1,014.3		

Note. GPA = Grade Point Average.

17

Table 4. Multilevel Regression Models for the Effects of Classical Academy's Ethical Philosophy Programming Upon Participating Students' Integrity, Perseverance, and Community Connectedness (n ethics/advisories = 31, n students = 541).

Fixed effect	Integrity				Perseverance				Community			
	β	SE	t	p	β	SE	T	p	β	SE	t	p
Intercept	1.63	0.37	4.39	<.001	0.58	0.31	1.86	.06	3.74	0.16	23.31	<.001
Level 2												
Classical academy	1.99	0.71	2.83	.005	-0.15	0.07	-2.21	.02	-0.39	0.20	-1.94	.05
Level 1												
Time 1 scores	0.62	0.05	13.21	<.001	0.59	0.04	16.38	<.001	—	—	—	—
Gender	-0.01	0.06	-0.23	.82	0.06	0.06	0.94	.35	-0.001	0.007	-1.22	.22
Af-Am	0.07	0.06	1.32	.19	0.10	0.06	1.73	.09	-0.002	0.002	-0.22	.82
6th grade	0.23	0.07	3.26	.001	0.09	0.08	1.20	.23	0.14	0.21	0.65	.51
7th grade	0.10	0.07	1.49	.14	0.03	0.07	0.39	.69	-0.01	0.20	-0.06	.95
GPA	-0.01	0.01	-0.51	.61	0.01	0.01	2.74	.007	-0.01	0.01	-1.23	.22
Demerits	-0.01	0.01	-2.15	.03	-0.01	0.01	-4.96	<.001	-0.01	0.01	-1.59	.11
Classical × GPA	-0.02	0.01	-2.60	.009	-0.01	—	—	—	—	—	—	—
Random effect	Var	SE	Z	p	Var	SE	Z	p	Var	SE	Z	p
Level 1 (r_{ij})	0.36	0.03	13.11	<.001	0.38	0.02	13.11	<.001	0.01	0.01	12.65	<.001
Level 2 (u_{0j})	0.01	0.01	0.07	.47	0.01	0.02	0.84	.19	1.11	0.12	9.04	<.001
−2LL	853.8				892.9				206.2			

Note. GPA = Grade Point Average.

a significant negative predictor of a student's commitment to integrity (p = .03). In other words, across all three schools in the study, sixth-grade students characterized themselves as possessing, on average, higher levels of academic integrity than their peers in the seventh and eighth grades. Likewise, across all three schools, students who received numerous demerits for misbehavior demonstrated, on average, lower academic integrity scores than their better-behaving peers.

The random effects for the academic integrity model reported in Table 4 suggest that, across all three schools, the particular cohort in which students were embedded for their advisory or ethical philosophy courses had no significant effect upon participating students' integrity scores (p = .47). Finally, there was evidence of a significant negative cross-level interaction between Classical Academy students' integrity scores and grade point average (p = .009). This finding suggests that the ethical philosophy programming at Classical Academy had a particularly strong effect upon the academic integrity of lower achieving students. The implications of all of these findings are taken up in the discussion section.

Perseverance. The descriptive statistics related to total mean scores for the perseverance measure reported in Table 2 reveal that, on average, students at all three schools began the 2010 to 2011 academic year with high levels of optimism about their ability to approach their academic work with high levels of perseverance. Specifically, on the Time 1 survey administered in September, 2010, Classical Academy students demonstrated a mean perseverance score of 3.89 on a 5-point scale; Collegiate Bound students demonstrated a mean perseverance score of 3.95; and Civitas Prep students demonstrated a mean perseverance score of 3.72. On average, students at all three schools reported declines in their commitment to perseverance on the Time 2 measure administered in May of 2011. Specifically, Classical Academy students reported mean perseverance scores on the Time 2 measure of 3.58 while Collegiate Bound and Civitas prep students reported mean perseverance scores of 3.77 and 3.72 respectively.

The estimates and statistics of the multilevel regression model for perseverance presented in Table 4 reveal that, after adjusting for students' Time 1 scores, Classical Academy students demonstrated significantly weaker levels of perseverance over the course of the 2010 to 2011 academic year than their peers at Collegiate Bound and Civitas Prep (p = .02). In other words, Classical Academy students characterized themselves, on average, as less likely than their peers to follow through on challenging homework assignments, pay attention in class when bored or work hard in pursuit of an academic goal. The (negative) effect of attending Classical Academy—which featured

ethical philosophy programming rather than advisory programming—upon early adolescents' perseverance scores was again a relatively small one (Cohen's d = .20).

Also evident in Table 4 is that grade point average was a significant positive predictor of perseverance (p = .007) and receipt of demerits (p = .0001) was a significant negative predictor of perseverance. In other words, across all three schools, the students with the highest levels of perseverance were also the students with the highest academic grades and the fewest number of demerits for antisocial or disruptive behavior.

The random effects for the multilevel perseverance model reported in Table 4 suggest that, across all three schools, the particular cohort in which students were embedded for their advisory or ethical philosophy courses had no significant effect upon participating students' perseverance scores (p = .47). Likewise, there was no evidence within the model of any significant cross-level interactions.

Community Connectedness

Finally, the descriptive statistics related to total mean scores for community connectedness reported in Table 2 reveal that, on average, Classical Academy students reported a weaker sense of community connectedness than their peers at Collegiate Bound and Civitas Prep. Specifically, on the Time 2 survey administered in May, 2011, students at Classical Academy reported a mean community connectedness score of 3.85 on a 5-point scale; Collegiate Bound students reported a mean community connectedness score of 4.07; and Civitas Prep students reported a mean community connectedness score of 3.97. The survey items measuring community connectedness were not included in the Time 1 survey completed by study participants in September of 2010 because sixth-grade students in the sample (who constituted a third of the total study participants) would only have been at their respective schools for a few days when they completed the Time 1 survey and, thus, would have had little opportunity to develop a sense of connectedness to their school community.

The estimates and statistics of the multilevel regression model for community connectedness presented in Table 4 reveal that Classical Academy students demonstrated significantly weaker levels of community connectedness (p = .05) at the conclusion of the 2010 to 2011 academic year than their peers at Collegiate Bound and Civitas Prep. In other words, Classical Academy students were, on average, less likely than their peers at the other schools to characterize their school community as one in which students and faculty treated each other with respect and caring, and one where community

members could turn to each other with problems. The (negative) effect of attending Classical Academy—the school which had substituted ethical philosophy programming for advisory programming—upon middle school students' sense of school connectedness was again a relatively small one (Cohen's $d = .20$).

Also evident in Table 4 was that students' school affiliation was the only significant predictor of community connectedness. Across all three schools, demographic factors such as gender, grade level and grade point average were not found to significantly predict participating students' sense of community connectedness. However, in contrast to the academic integrity and perseverance models reported above, the random effects for the multilevel community connectedness model reported in Table 4 reveals that, across all three schools, participating students' sense of community connectedness were significantly predicted by the particular advisory group or ethical philosophy class in which they were embedded ($p < .0001$). These and other findings are taken up in greater detail in the *Discussion*.

Discussion

The present study drew upon a quasi-experimental research design to test the hypothesis that Classical Academy's replacement of weekly advisory lessons with ethical philosophy programming would have a significant positive effect upon participating students' moral character development and a significant negative effect upon their performance character development in comparison to peers at two highly similar urban middle schools. Analyses of pre-post surveys administered over the course of the 2010 to 2011 academic year—and containing measures of three moral character strengths and three performance character strengths that one or more of the schools cited as a core value—confirmed a portion of our hypothesis.

Moral Character and Ethical Philosophy

In terms of students' moral character strengths, we found that participating students at Classical Academy demonstrated significantly larger shifts in their commitment to academic integrity—but not ethical identity or social responsibility—over the course of the academic year than their peers at the comparison schools. Specifically, after adjusting for students' initial commitment to academic integrity, Classical Academy students expressed a stronger commitment than their peers at the comparison schools to avoid engaging in cheating or plagiarism, even when such behaviors might benefit a friend or result in high academic marks. Moreover, the negative cross-level interaction

with students' grade point average suggests that Classical Academy's ethical philosophy programming had a particularly strong effect upon the academic integrity of the school's lower achieving students. Such findings are important ones given the scholarship that has found alarmingly high frequencies of cheating and plagiarism in American middle and secondary schools and particularly among lower achieving students (Evans & Craig, 1990; McCabe, 2005; Miller et al., 2007; Steinberg, 1996). In the short-term, such behaviors have a negative effect upon student learning (Ma, Lu, Turner & Wan, 2007) and school culture (Murdock et al., 2001). Even more concerning is research suggesting that individuals who engage in cheating behaviors as youth are more likely to act unethically in their personal and professional lives as adults (Fischman, Solomon, Greenspan, & Gardner, 2004; Josephson Institute of Ethics , 2009).

The extant research literature on reducing incidences of cheating and plagiarism has focused primarily on teacher-student relationships (Anderman et al., 1998; Calabrese & Cochran, 1990), the use of plagiarism detection software (Braumoeller & Gaines, 2001) and the emphasis of mastery learning goals over performance goals (Stephens, 2005). Little research, however, has been conducted on deepening students' commitment to academic integrity through philosophical study. As noted in the methods section, Classical Academy's ethical philosophy programming introduced students to readings from Gandhi and other thinkers on the importance of integrity, and then students and their teachers discussed and reflected upon the role of integrity in their own lives. The significantly deeper commitment to academic integrity, on average, of Classical Academy students in comparison to their peers at two highly similar middle schools suggests that such philosophical inquiry may be an effective means of addressing the concerning proportions of youth in the United States engaging in academically dishonest behaviors. Moreover, these results align with a sizable body of scholarship of Lawrence Kohlberg and his successors that has found a negative relationship between moral reasoning and delinquent behaviors such as cheating (e.g., Carlo et al., 1998; Fabes et al., 1999; Kohlberg, 1975; Kohlberg & Candee, 1984). While a qualitative investigation of the workings of Classical Academy's ethical philosophy course extend beyond the scope of the present study, it seems reasonable to speculate that the programming increased students' commitment to academic integrity by providing an opportunity to engage in moral reasoning and reflection about the importance of acting with integrity.

The multilevel analyses of students' commitment to academic integrity also revealed that, across all three schools, sixth-grade students cited significantly higher levels of academic integrity than their peers in the seventh

and eighth grades. Likewise, across all three schools, students who earned the lowest numbers of demerits for misbehavior were also the students most likely to score high in their commitment to academic integrity. The fact that sixth-grade students demonstrated the highest levels of academic integrity aligns with a significant body of research that has found cheating behaviors to increase as students transition from elementary to middle school and then from middle school to high school (Anderman & Midgley, 2004; Murdock et al., 2001). These increases in academic dishonesty have been attributed to the increased emphasis on academic grades, heightened competition among classmates and more superficial relationships with teachers as students advance through the middle and secondary grades (Anderman et al., 1998). The negative relationship between academic integrity and demerits suggests that students committed to academic integrity are also less likely to engage in other forms of school-based misbehavior. This finding resonates with research that has found a significant relationship between adolescents' conduct at school and their sense of themselves as possessing a strong moral character (Arnold, 1993; Barriga, Morrison, Liau, & Gibbs, 2001).

Finally, it should be noted that Classical Academy students did not demonstrate significant differences from their peers at the comparison schools in their sense of ethical identity or social responsibility. For students at all three schools, ethical identity scores remained, on average, stable over the course of the academic year. In contrast, student at all three schools demonstrated sizable gains in their scores on the social responsibility measure over the course of the 2010 to 2011 academic year, though these gains did not differ significantly by school. The null effects on both of these measures are surprising in that one might one might reasonably expect an ethical philosophy curriculum explicitly focused on strengthening students' moral character development to have a significant effect upon students' sense of themselves as ethical individuals. Likewise, at each grade level, during their ethical philosophy programming, Classical Academy students engaged in a unit focused on the character strength of social responsibility. Although a qualitative investigation of Classical Academy's ethical philosophy programming would be necessary to consider why this programming demonstrated differential effects upon different character strengths, it is notable that academic integrity is a more narrowly defined character strength than either ethical identity or social responsibility. One might speculate that the greater specificity of this character strength may have allowed Classical Academy's ethical philosophy programming to address the topic more directly and, as a result, to engender stronger effects upon participating students.

Performance Character and Advisory

In terms of students' performance character strengths, we found that participating students at Classical Academy demonstrated significantly weaker shifts in their commitment to community connectedness and perseverance—but not courage—than their peers at Collegiate Bound and Civitas Prep. Specifically, after adjusting for students' initial perseverance scores, students at Collegiate Bound and Civitas Prep demonstrated a stronger commitment than their peers at Classical Academy to following through on challenging homework assignments, maintaining their focus during tedious lessons, and working hard in pursuit of an academic goal. Such a finding is an important one given the robust evidence of a strong relationship between academic achievement and perseverance (Bloom, 1985; Duckworth & Seligman, 2005, 2006; Ericsson et al., 1993; Terman, 1947; Winner, 1997; Wolfe & Johnson, 1995) as well as self-discipline and student conduct (Feldman & Weinberger, 1994; Kemp et al, 2009; Kim & Brody, 2005; Tittle & Botchkovar, 2005; Vazsonyi, Pickering, Junger, & Hessing, 2001). Underscoring this prior research is evidence from the present study that, across all three schools, students who reported the highest levels of perseverance were also the students with the highest grade point averages and the fewest number of demerits for misbehavior.

While a robust body of scholarship exists on the relationship between perseverance and student success, relatively little research exists on the most effective tools for cultivating these performance character strengths in early adolescents. The results of the present study suggest that the advisory programming at Collegiate Bound and Civitas Prep had a positive effect upon participating students' commitment to persevering in their academic work. Recall that one lever in the two schools' advisory classes for strengthening perseverance was exposure to speeches and stories identifying the role of perseverance in contributing to lasting success. Similar to the ethical philosophy programming at Classical Academy, such texts served as entry points for students to reflect upon and discuss the role of perseverance in their own lives. Additionally, the advisory programming at both Collegiate Bound and Civitas Prep offered students' opportunities to receive coaching and practice at persevering on their academic work. At Civitas Prep, students met one-on-one with their advisors to discuss their biweekly progress reports and identify targeted strategies for improving their academic performance. Likewise, students at Collegiate Bound practiced study-skills strategies in advisory to help them prepare for their comprehensive exams. As noted in the *Introduction*, the extant research literature on advisory programming has focused primarily upon the effectiveness of advisory at strengthening students' relationships with peers (e.g., Ayres, 1994) and teachers (e.g., Espe, 1993; Totten & Nielson, 1994). The present study,

however, provides initial support for the effectiveness of advisory programming in cultivating performance character strengths such as perseverance that have a direct relationship to academic achievement.

As noted in the preceding paragraph, the extant research literature on advisory programming has focused primarily upon the ability of such programming to foster participating students' sense of school connectedness (Shulkind, 2007; Ziegler & Mulhall, 1994). The present study found as well that students participating in the advisory programming at Collegiate Bound and Civitas Prep were significantly more likely than their peers at Classical Academy to characterize their school community as one in which youth and adults treated each other with respect, and where community members could turn to each other for help with problems. Such a sense of community connectedness represents a powerful performance character strength in that researchers have found connectedness to one's school community to be a significant predictor of grade point average (Hanson et al., 2004; McClure et al., 2010), performance on state assessments (Benninga et al., 2003); and classroom engagement (Blum & Libbey, 2004; Roeser et al., 1996). Moreover, the fact that analyses of the community connectedness model revealed significant within-cohort differences suggests that, across all three schools, the particular advisory in which each student was embedded had a significant effect upon that particular student's sense of connection to the wider school community. Such a finding underscores the role that advisory groups can play in promoting community connectedness.

Finally, there were no significant differences across the three schools on the courage measure, with students at all three schools demonstrating, on average, little change in their courage scores over the course of the 2010 to 2011 academic year. This finding was not particularly surprising. Courage was included in this study's survey tool because both Classical Academy and Civitas Prep cited courage as a core value; however, courage also represented the most ambiguous measure in the study in terms of its classification as a performance character strength or a moral character strength. In identifying courage as a performance character strength, our research team relied upon Berkowitz and Puka's (2009) definition of a performance character strength as neither intrinsically good nor bad but rather derivative of the ends toward which it is applied. Nonetheless, this character strength's ambiguity may explain why neither ethical philosophy nor advisory programming exerted a discernible effect upon the courage scores of participating students.

Limitations

Although we believe this study's findings to be robust, future researchers would do well to address several limitations to the present study. First, this

study sought to assess the impact of ethical philosophy and advisory programming upon the character development of participating students via pre-post surveys. As a result, our findings were dependent upon students' self-assessment of their commitment to approaching their academic work with perseverance, integrity, and so forth. Future researchers would do well to seek out new and different measures for the character strengths of interest. For example, one could seek out teachers' evaluations of their students' perseverance and integrity or rely on more objective data such as each student's homework completion rate or incidences of cheating over the course of the academic year.

Another limitation related to this study's pre-post survey tool was the low internal consistency reliability of several measures including the 2-item community connectedness measure and the 3-item courage measure. Although the items comprising our measures were adapted from previously validated scales, several demonstrated low internal consistency reliability. In fact, a measure for compassion originally included on the survey and adapted from Funk, Fox, Chan, and Curtiss' (2008) *Children's Empathy Questionnaire* had to be disregarded due to unacceptable internal consistency reliability. Given our study's highly diverse population of early adolescents, we would have been well-served to fine-tune our character measures through an exploratory pilot study with a similar population of early adolescents.

A third limitation related to this study's survey tool would seem to be the high Time 1 mean scores across all three schools on several of this study's character measures. As noted in the discussion section, it would seem that surveying early adolescents about their integrity and perseverance in the opening days of the school year—before tests have been taken or homework assigned—leads to highly optimistic self-reporting and, as a result, may have masked a portion of the effects of the schools' respective character education programming. While we deliberately administered these surveys in the opening days of the school year in order to establish useful baseline measures, it may have been more effective to administer the Time 1 survey a month into the academic year.

Finally, a fourth limitation to the present study is its lack of a true experimental design. While we sought in the present study to identify three schools that were highly similar in terms of location, size, educational philosophy, school culture, student demographics, and student achievement, there remain some differences across the three schools in terms of the racial and socioeconomic diversity of the student bodies. Future researchers would do well to identify a set of middle schools in which half the student body at each school is randomly assigned to participate in ethical philosophy or advisory programming.

Implications

All three of the schools in the present study cite character development as central to students' ability to be successful in college and life; however, Classical Academy has focused on moral character development through ethical philosophy programming while Collegiate Bound and Civitas Prep emphasize performance character development through advisory programming. The present study revealed that these disparate approaches to character development resulted in the cultivation of different character strengths among the student bodies of these respective schools. On average, Classical Academy students demonstrated a deeper commitment to academic integrity while Collegiate Bound and Civitas Prep students demonstrated higher levels of perseverance and community connectedness.

The pressure facing contemporary school leaders—particularly in urban communities—to demonstrate adequate yearly progress via student performance on state assessments creates strong incentives to favor character education programming focused on students' performance character development. Toward this end, it seems that many school leaders would benefit from a closer examination of the particular learning objectives and lessons through which faculty at Collegiate Bound and Civitas Prep utilized their weekly advisory programming to promote students' performance character development and the character strengths of perseverance and community connectedness in particular. Advisory has typically been utilized to offer students' academic support via tutoring or social-emotional support by fostering bonds among a small group of students and faculty members (Galassi et al., 1997). The advisory programming at Collegiate Bound and Civitas Prep included these aims as well; however, the use of advisory at both schools to engage students in reading, discussion, and self-reflection upon the particular character strengths that promote achievement warrants greater attention from both researchers and school leaders.

In an era of high-stakes testing and increasingly competitive admissions rates to highly competitive universities, middle and secondary students also experience pressure to demonstrate high academic marks on state assessments and in their daily academic work. Researchers have found that the increasing emphasis placed on test scores and the prioritizing of performance goals over mastery goals has led nearly two thirds of American middle school students to cheat on a test in the past year and more than 90% to plagiarize a classmate's homework assignment (Anderman et al., 1998; Steinberg, 1996; Evans & Craig, 1990). Such cheating behaviors are concerning in and of themselves and also represent an impediment to students genuinely learning the academic content for which they are responsible (Evans & Craig, 1990;

Miller et al., 2007). For these reasons, the ability of Classical Academy's ethical philosophy programming to exert a significant effect upon participating students' commitment to academic integrity is worthy of greater attention by researchers and school leaders as well, even those interested primarily in fostering students' performance character development. The extant research literature on promoting academic integrity has focused primarily upon ways in which classroom teachers can discourage incidences of cheating through plagiarism-detection software (Braumoeller & Gaines, 2001), enhanced teacher-student relationships (Stearns, 2001) or the emphasis of content mastery over academic marks (Stephens, 2005). Classical Academy has chosen to taken an entirely different approach to promoting academic integrity; namely, by engaging students in ethical philosophy programming that provides opportunities for deliberate reading, discussion and reflection upon the importance of embodying academic integrity and other moral character strengths. Given the epidemic of cheating and plagiarism in American middle and secondary schools, this approach, too, seems worthy of greater attention from both researchers and school leaders.

Finally—despite their distinct character emphases—it is important to note several key commonalities across the three schools in the present study in their approach to character education. First, all three school communities had identified and articulated the character strengths they most valued and sought to develop in their students. Collegiate Bound and Civitas Prep focused on performance character while Classical Academy emphasized students' moral character development. At all three schools, however, there was clarity about the community's character development goals. Moreover, all three schools established learning structures within their weekly schedule (e.g., ethical philosophy and advisory programming) to lay the foundation for such character development to take place. The groundwork and terminology established through this programming then allowed faculty and administrators at all three schools to reference their respective character emphases in community meetings, academic classes, and informal discussions with students.

Finally, it is notable that there were also similarities in the pedagogical approach to character development in both ethical philosophy and advisory classes. Namely, many of the ethical philosophy lessons at Classical Academy and the advisory lessons at the comparison schools utilized a "text" to introduce students to a particular character strength and then provided opportunities for discussion and self-reflection upon the role of that character strength within students' own lives. At Classical Academy, that text tended to be an excerpt from a larger philosophical work while Collegiate Bound and Civitas Prep drew upon a more diverse set of sources ranging from graduation speeches to television commercials to Japanese fables. Faculty at all three

schools, however, sought to deepen students' commitment to their respective character emphases by offering a weekly opportunity for exposure to a character-driven text, followed by discussion and reflection upon the themes within this text.

Given all of these similarities in the structure of the schools' character education programming, an important question for future research is whether a school community could effectively privilege *both* performance and moral character development. As the present study reveals, there are important outcomes for students associated with both approaches to character development, and certainly educators aspire to foster both the moral and performance character development of their students. Thus, a key question is whether character education programming emphasizing both types of character development could be effective. Could a school community spend the first half of the academic year emphasizing perseverance and self-discipline and the latter half of the academic year emphasizing integrity and empathy? Or would this broader focus weaken the effect upon both the moral *and* performance character development of participating students? If dual-focused character education programming can be shown to be effective, then school leaders and faculty members would do well to draw upon elements of both the ethical philosophy and advisory programming featured in the present study, with the goal of deepening their own students' commitment to persevere on challenging academic assignments and to approach such assignments with honesty and integrity.

Declaration of Conflicting Interests

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References

Achievement First. (2012). *Achievement first: Our approach*. Retrieved from http://www.achievementfirst.org

Anderman, E., Griesinger, T., & Westerfield, G. (1998). Motivation and cheating during early adolescence. *Journal of Educational Psychology*, *90*(1), 84-93.

Anderman, E., & Midgley, C. (2004). Changes in self-reported academic cheating across the transition from middle school to high school. *Contemporary Educational Psychology*, *29*, 499-517.

Angrist, J., Dynarski, S., Kane, T., Pathak, P., & Walters, C. (2010). *Who benefits from KIPP?* NBER Working Paper No. 15740. Cambridge, MA: National Bureau of Economic Research.

Arnold, M. (1993). *The place of morality in the adolescent self* (Unpublished doctoral dissertation). Harvard University, Cambridge, MA.

Ayres, L. (1994). Middle school advisory programs: Findings from the field. *Middle School Journal*, *25*(3), 8-14.

Barden, L., Frase, P., & Kovac, J. (1997). Teaching scientific ethics: A case studies approach. *The American Biology Teacher*, *59*(1), 12-14.

Barriga, A. Q., Morrison, E. M., Liau, A. K., & Gibbs, J. C. (2001). Moral cognition: Explaining the gender difference in antisocial behavior. *Merrill-Palmer Quarterly*, *47*, 532-562

Benninga, J., Berkowitz, M., Kuehn, P., & Smith, K. (2003). The relationship of character education implementation and academic achievement in elementary schools. *Journal of Research in Character Education*, *1*(1), 19-32.

Berkowitz, M., & Hoppe, M. (2009). Character education and gifted children. *High Ability Studies*, *20*, 131-142.

Berkowitz, M., & Puka, W. (2009). Dissent and character education. In M. Gordon (Ed.), *Reclaiming dissent: Civic education for the 21st century* (pp. 107-130). Amsterdam, The Netherlands: Sense Publishers.

Bloom, B. (1985). *Developing talent in young people*. New York, NY: Ballantine Books.

Blum, R., & Libbey, P. (2004). School connectedness: Strengthening health and education outcomes for teenagers. *Journal of School Health*, *74*(7), 229-299.

Bock, T., Giebel, H., Grundtner, J., & Rode, M. (2008, November). *Undergraduate ethical development in a university-required ethics course*. Paper presented at the meeting of the Association for Moral Education, Notre Dame, IN.

Braumoeller, B., & Gaines, B. (2001). Actions do speak louder than words: Deterring plagiarism with the use of plagiarism-detection software. *Political Science & Politics*, *34*, 835-839.

Calabrese, R., & Cochran, J. (1990). The relationship of alienation to cheating among a sample of American adolescents. *Journal of Research and Development in Education*, *23*, 65-72.

Camhy, D., & Ibeer, G. (1988). Philosophy for children: A research project for further mental and personality development of primary and secondary school pupils. *Thinking*, *7*, 18-26

Carlo, G., Koller, S., & Eisenberg, N. (1998). Prosocial moral reasoning in institutionalized delinquent, orphaned and non-institutionalized Brazilian adolescents. *Journal of Adolescent Research*, *13*, 363-376.

Carter, S. (2000). *No excuses: Lessons from 21 high performing, high poverty schools*. Washington, DC: Heritage Foundation.

Character Education Partnership. (CEP, 2008). Performance values: Why they matter and what schools can do to foster their development. *Journal of Research in Character Education*, 6(1), 73-81.

Davidson, M., Khmelkov, V., & Baker, K. (2011). Sustainability and enduring impact: Shaping an intentional culture of excellence and ethics. *Journal of Character & Leadership Integration*, *2*(1), 35-50.

Dehaan, R., Hanford, R., Kinlaw, K., Philler, D., & Snarey, J. (1997). Promoting ethical reasoning affect, and behavior among high school students: An evaluation of three teaching strategies. *Journal of Moral Education*, *26*(1), 5-20.

Duckworth, A., & Seligman, M. (2005). Self-discipline outdoes IQ in predicting academic performance of adolescents. *Psychological Science*, *16*, 939-944.

Duckworth, A., & Seligman, M. (2006). Self-discipline gives girls the edge: Gender in self-discipline, grades, and achievement test scores. *Journal of Educational Psychology*, *98*(1), 198-208.

Duckworth, A., Peterson, C., Matthews, M., & Kelly, D. (2007). Grit: Perseverance and passion for long-term goals. *Journal of Personality and Social Psychology*, *92*, 1087-1101.

English, P., & Foster, T. (1996). Philosophy classes for gifted high school students. *Teaching Philosophy*, *19*(2), 127-136.

Ericsson, A., Krampe, R., & Tesch-Romer, C. (1993). The role of deliberate practice in the acquisition of expert performance. *Psychological Review*, *100*, 363-406.

Espe, L. (1993). The effectiveness of teacher advisors in a junior high. *The Canadian School Executive*, *12*(7), 15-19.

Evans, E., & Craig, D. (1990). Adolescents' cognitions for academic cheating as a function of grade level and achievement status. *Journal of Adolescent Research*, *5*, 325-345.

Fabes, R., Carlo, G., Kupanoff, K., & Laible, D. (1999). Early adolescence and prosocial/moral behavior I: The role of individual processes. *Journal of Early Adolescence*, *19*(1), 5-16.

Feldman, S., & Weinberger, D. (1994). Self-restraint as a mediator of family influences on boys' delinquent behavior: A longitudinal study. *Child Development*, *65*(1), 195-211.

Fischman, W., Solomon, B., Greenspan, D., & Gardner, H. (2004). *Making good: How young people cope with moral dilemmas at work*. Cambridge, MA: Harvard University Press.

Flanagan, C., Cumsille, P., Gill, S., & Gallay, L. (2007). School and community climates and civic commitments: Patterns for ethnic minority and majority students. *Journal of Educational Psychology*, *99*, 421-431.

Funk, J., Fox, C., Chan, M., & Curtiss, K. (2008). The development of the children's empathic attitudes questionnaire using classical and Rasch analyses. *Journal of Applied Developmental Psychology*, *29*(3), 187-196.

Galassi, J., Gulledge, S., & Cox, N. (1997). Middle school advisories: Retrospect and prospect. *Review of Educational Research*, *67*, 301-338.

Garcia-Moriyon, F., Rebollo, I., & Colom, R. (2005). Evaluating philosophy for children: A meta-analysis. *Thinking*, *17*(4), 14-22.

Ghaffari, M. (2008). Instant gratification and culture of academic dishonesty: Implications of trinity paradigm of intelligence in developing a culture of integrity. *The International Journal of Interdisciplinary Social Sciences*, *3*, 89-102.

Hanson, T., Muller, C., Austin, G., & Lee-Bayha, J. (2004). Research findings about the relationships between student health and academic success. In *Getting results: Update 5, Student health, supportive schools, and academic success* (pp. 5-20). Sacramento, CA: California Department of Education.

Hogan, R., & Weiss, D. (1974). Personality correlates of superior academic achievement. *Journal of Counseling Psychology*, *21*, 144-149.

Howe, M. (2001). *Genius explained*. Cambridge, UK: Cambridge University Press.

Josephson Institute of Ethics. (2009). *Josephson institute of ethics releases study on high school character and adult conduct*. Retrieved from http://josephson institute.org

Juvonen, J. (2007). Reforming middle schools: Focus on continuity, social connectedness, and engagement. *Educational Psychologist*, *42*(4), 197-208.

Kemp, R., Vermulst, A., Finkenauer, C., Scholte, R., Overbeek, G., Romes, E., & Engels, R. (2009). Self-control and early adolescent antisocial behavior. *Journal of Early Adolescence*, *29*, 497-517.

Kim, S., & Brody, G. (2005). Longitudinal pathways to psychological adjustment among Black youth living in single-parent households. *Journal of Family Psychology*, *19*, 305-313.

KIPP Character and Academics. (2012). *Character at KIPP*. Retrieved from http://www.kipp.org/character

Kisamore, J., Stone, T., & Jawahar, M. (2007). Academic integrity: The relationship between individual and situational factors on misconduct contemplations. *Journal of Business Ethics*, *75*, 381-394.

Kohlberg, L. (1975). The just community school: The theory and the Cambridge cluster school experiment. In *Collected papers from the Center of Moral Education*. (pp. 1-77). Cambridge, MA: Harvard University.

Kohlberg, L., & Candee, D. (1984). The relationship of moral judgment to moral action. In W. Kurtines & J. Gewirtz (Eds.), *Morality, moral behavior and moral development* (pp. 52-73). New York, NY: Wiley.

Lickona, T. (1989). *Educating for character: How our schools can teach respect and responsibility*. New York, NY: Bantam.

Lickona, T., & Davidson, M. (2005). *Smart and good high schools*. Washington, DC: Character Education Partnership.

Lipman, M. (1984). The cultivation of reasoning through philosophy. *Educational Leadership*, *42*(1), 51-56.

Lipman, M. (1988). *Philosophy goes to school*. Philadelphia, PA: Temple University Press.

Ma, H., Lu, E., Turner, S., & Wan, G. (2007). An empirical investigation of digital cheating and plagiarism among middle school students. *American Secondary Education*, *35*(2), 69-82.

McCabe, D. (2005). Cheating among college and university students: A North American perspective. *International Journal for Educational Integrity*, *1*(1), 1-11.

McCabe, D., & Trevino, L. (1997). Individual and contextual influences on academic dishonesty: A multi-campus investigation. *Research in Higher Education*, *38*, 379-396.

McCabe, D., Trevino, L., & Butterfield, K. (2001). Cheating in academic institutions: A decade of research. *Ethics & Behavior*, *11*, 219-232.

McClure, L., Yonezawa, S., & Jones, M. (2010). Can school structures improve teacher-student relationships? The relationship between advisory programs, personalization and students' academic achievement. *Education Policy Analysis Archives*, *18*(17), 1-17.

McLellan, E. (1999). *Moral education in America: Schools and the shaping of character from colonial times to the present*. New York, NY: Teachers College Press.

Merriam-Webster Dictionary. (2012). *Perseverance*. Retrieved from http://www.merriam-webster.com.

Middleton, M., & Midgley, C. (1997). Avoiding the demonstration of lack of ability: An underexplored aspect of goal theory. *Journal of Educational Psychology*, *89*, 710-718.

Miller, A., Murdock, T., Anderman, E., & Poindexter, A. (2007). Who are all these cheaters? Characteristics of academically dishonest students. In. E. Anderman & T. Murdock (Eds.), *Psychology of academic cheating* (pp. 9-33). Burlington, MA: Elsevier Academic Press.

Miller, A., Shoptaugh, K., & Woodridge, J. (2011). Reasons not to cheat, academic-integrity responsibility, and frequency of cheating. *Journal of Experimental Education*, *79*(2), 169-184.

Murdock, T., Hale, N., & Weber, M. (2001). Predictors of cheating among early adolescents: Academic and social motivations. *Contemporary Educational Psychology*, *24*, 96-115.

Narvaez, D. (2002). Does reading moral stories build character? *Educational Psychology Review*, *14*, 155-171.

Niederjohn, M., Nygard, K., & Wood, W. (2009). Teaching ethics to high school students: Virtue meets economics. *Social Education*, *73*(2), 76-78.

Noddings, N. (1988). An ethics of caring and its implications for instructional arrangements. *American Journal of Education*, *96*, 215-230.

Noddings, N. (1994). Conversation as moral education. *Journal of Moral Education*, *23*(2), 107-118.

Noddings, N. (2002). *Educating moral people: A caring alternative to character education*. New York, NY: Teachers College Press.

Pass, S., & Willingham, W. (2009). Teaching ethics to high school students. *Social Studies*, *100*, 23-30.

Pancer, M., Pratt, M., Hunsberger, B., & Alisa, S. (2007). Community and political involvement in adolescence: What distinguishes the activists from the uninvolved? *Journal of Community Psychology*, *35*, 741-759.

Park, N., & Peterson, C. (2006). Moral competence and character strengths among adolescents: The development and validation of the values in action inventory for youth. *Journal of Adolescence*, *29*, 891-909.

Peterson, R. (1994). A meta-analysis of Cronbach's coefficient alpha. *Journal of Consumer Research*, *21*, 381-391.

Rost, D., & Wild, K. (1990). Cheating and achievement-avoidance at school: Components and assessment. *Zeitschrift for Padagogische Pscyhologie*, *4*, 13-27.

Roeser, R., Midgley, C., & Urdan, T. (1996). Perceptions of the school psychological environment and early adolescents' psychological and behavioral functioning in school: The mediating role of goals and belonging. *Journal of Educational Psychology*, *88*, 408-422.

Shulkind, S. (2007). *Fostering connectedness through middle school advisory programs*. (Unpublished doctoral dissertation). University of California Los Angeles, Los Angeles.

Simon, H., & Chase, W. (1973). Skill in chess. *American Scientist*, *61*, 394-403.

Stearns, S. (2001). The student-instructor relationship's effect on academic integrity. *Ethics & Behavior*, *11*, 275-285.

Steinberg, L. (1996). *Beyond the classroom: Why school reform has failed and what parents need to do*. New York, NY: Simon & Schuster.

Stephens, J., & Nicholson, H. (2008). Cases of incongruity: Exploring the divide between adolescents' beliefs and behavior related to academic dishonesty. *Educational Studies*, *34*, 361-376.

Stephens, J., Young, M., & Calabrese, T. (2007). Does moral judgment go offline when students are online? A comparative analysis of undergraduates' beliefs and behaviors related to conventional and digital cheating. *Ethics & Behavior*, *17*, 233-254.

Stephens, J. (2005). Justice or just us? What to do about cheating. In A. Lathrop & K. Foss (Eds.), *Guiding students from cheating and plagiarism to honesty and integrity: Strategies for change* (pp. 32-34). Westport, CT: Libraries Unlimited.

Strom, P., & Strom, R. (2008). Cheating in middle school and high school. *The Education Forum*, *71*(2), 104-116.

Strong, A. (2004). Voyaging to the outer limits of education: Reflections on P4C in the secondary classroom. *Thinking: The Journal of Philosophy for Children, 17*(1-2), 56-64.

Terman, L. (1947). *The gifted child grows up: Twenty-five years' follow-up of a superior group*. Palo Alto, CA: Stanford University Press.

Tittle, C., & Botchkovar, E. (2005). Self-control, criminal motivation and deterrence: An investigation using Russian respondents. *Criminology*, *43*, 307-354.

Totten, S., & Nielson, W. (1994). Middle level students' perceptions of their advisor/advisee program: A preliminary study. *Current Issues in Middle Level Education*, *3*(2), 9-33.

Vazsonyi, A., Pickering, L., Junger, M., & Hessing, D. (2001). An empirical test of a general theory of crime: A four-nation comparative study of self-control and the prediction of deviance. *Journal of Research in Crime and Delinquency*, *38*(2), 91-131.

Walker, L., & Pitts, R. (1998). Naturalistic conceptions of moral maturity. *Developmental Psychology*, *34*, 403-419.

Wangaard, D., & Stephens, J. (2011). *Creating a culture of academic integrity*. Minneapolis, MN: Search Institute Press.

Wentzel, K. (1997). Student motivation in middle school: The role of perceived pedagogical caring. *Journal of Educational Psychology*, *89*, 411-419.

Winner, E. (1997). *Gifted children: Myths and realities*. New York, NY: Perseus.

Wolfe, R., & Johnson, S. (1995). Personality as a predictor of college performance. *Educational and Psychological Measurement*, *55*, 177-185.

Ziegler, S., & Mulhall, L. (1994). Establishing and evaluating a successful advisory program in a middle school. *Middle School Journal*, *25*(4), 42-46.

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