

**The Role of Moral and Performance Character Strengths in Predicting Achievement and Conduct among Urban Middle School Students**

In Press, *Teachers College Record*

Scott Seider  
Boston University

Jennifer K. Gilbert  
Vanderbilt University

Sarah Novick  
Boston University

Jessica Gomez  
Boston University

# **The Role of Moral and Performance Character Strengths in Predicting Achievement and Conduct among Urban Middle School Students**

## **Executive Summary**

Over the past decade, a number of leading charter school networks have taken up character development as a key lever in promoting student success. This interest in character development has focused primarily upon cultivating students' performance character. Performance character consists of the qualities that allow individuals to regulate their thoughts and actions in ways that support achievement in a particular endeavor. Examples of performance character include persistence, self-discipline and grit. 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. Examples of moral character strengths include empathy and integrity.

The emphasis on performance character development at charter school networks such as the Knowledge is Power Program (KIPP) finds support in a sizable body of research demonstrating correlations between academic achievement and performance character strengths such as persistence and self-discipline. In contrast, the relationship between student achievement and moral character strengths such as empathy and integrity is more ambiguous. In the present study, however, we present data from three urban charter middle schools that reveal both moral and performance character strengths to be predictive of students' achievement and conduct. Our results point to the role that both types of character play in predicting key student outcomes.

This study's participants consisted of 488 early adolescents between the ages of ten and fourteen years old attending three charter middle schools in a large northeastern city. All three schools are located within a few miles of each other and admit students from any neighborhood

in the city through randomized registration lotteries. More than 90% of the students attending these schools identify as African American, Latino or multi-racial, and two thirds qualify for free or reduced price lunch (a proxy for low socioeconomic status). Similar to schools in the KIPP charter network, all three schools in the present study can be characterized as “No Excuses” schools— a term used to describe high-poverty public schools featuring a strict disciplinary environment, extended time in school, college preparatory mission and an intensive focus on traditional reading and mathematics skills.

Students at all three schools completed surveys in the openings weeks of the 2010-2011 school year (Time<sub>1</sub>) and then completed a similar survey at the conclusion of the academic year in June of 2011 (Time<sub>2</sub>). The survey tool consisted of measures that were aligned with the character strengths cited as core values at one or more of the participating schools: courage, empathy, integrity, perseverance and social responsibility. Also included on the surveys were demographic questions about students’ gender, race/ethnicity, grade level and feelings of school connectedness. Additionally, at the conclusion of the academic year, we collected from administrators at the three schools student-level data on academic achievement (grade point average) and student behavior (demerits) that served as the outcome variables in our analyses.

For both of these outcomes, we fit quantile regression models that considered the predictive strength of our five character strengths of interest while controlling for participating students’ school attended, gender, race/ethnicity, grade level and feelings of school connectedness. The final model for grade point average revealed that perseverance, school connectedness and grade level were significant positive predictors of student’s academic achievement while integrity and demerits were significant negative predictors of student achievement. In sum, middle school students across the three schools who reported the highest

levels of academic achievement were also the students, on average, who demonstrated high levels of perseverance, felt highly connected to their school communities, received few demerits and demonstrated a weak commitment to academic integrity. The character strengths of perseverance and integrity accounted for approximately six percent of the variance in academic achievement among middle school students in the sample.

In terms of student conduct, participating students' likelihood of earning demerits was significantly predicted by their grade level, grade point average, gender, race/ethnicity and commitment to acting with integrity. Most relevant to the present study was that, on average, the students who demonstrated the highest levels of integrity also earned the fewest number of demerits. In sum, students who possessed high levels of integrity were less likely to engage in the disruptive or anti-social behaviors that compromise their (and their classmates') engagement in learning. The character strength of integrity accounted for approximately two percent of the variance in conduct among middle school students in the present study.

The design of the present study cannot establish a causal relationship between students' character strengths, academic achievement and school conduct. Moreover, the magnitude of the relationships between these variables is relatively small. Nonetheless, the results of the present study suggest that urban educators committed to cultivating students' character development would do well to target moral character strengths such as integrity as well as performance character strengths such as perseverance. There are thousands of educators working diligently every day in settings similar to the schools in the present study to help their students from underserved urban communities develop the academic and social skills necessary to compete with youth from more affluent and better-resourced communities. If this work to close the achievement gap is to be successful, educators must draw upon every tool at their disposal to

support student success. The present study suggests that cultivating students' moral and performance character strengths represent important tools in this endeavor.

## **The Role of Moral and Performance Character Strengths in Predicting Achievement and Conduct among Urban Middle School Students**

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 the values such as respect, loyalty and self-discipline necessary to develop into productive workers and citizens (McLellan, 1999). Over the past decade, several “No Excuses” charter school networks have taken up character development as a key lever in promoting student success.

‘No Excuses’ is a term used to describe high-poverty public schools featuring a strict disciplinary environment, extended time in school, a college preparatory mission and an intensive focus on traditional reading and mathematics skills (Carter & Myerson, 2000). One such network of schools— the Knowledge is Power Program (KIPP)— operates 109 schools in 20 states and proclaims that “the development of character has been as important to us as the teaching of rigorous academic skills” (KIPP, 2012). Specifically, KIPP cites the development of character strengths such as self-control, optimism, curiosity and grit as “necessary for the success of our students in college and life” (KIPP, 2012). Another leading ‘No Excuses’ charter network, Achievement First, describes its mission as “providing students with the academic and character skills they need to achieve at high levels” (Achievement First, 2012).

This interest in character development at KIPP, Achievement First and several other “No Excuses” charter school networks has focused primarily upon performance character— the qualities necessary to achieve one’s potential in endeavors ranging from art to academics to athletics (Lickona & Davidson, 2005). Journalist Paul Tough has written that the character strengths emphasized at KIPP and Achievement First “lean much more heavily toward

performance character [than moral character]: while they do have a moral component, strengths like zest, optimism, social intelligence, and curiosity aren't particularly heroic; they make you think of Steve Jobs or Bill Clinton more than the Rev. Martin Luther King Jr. or Gandhi" (p. 7).

As described below, this emphasis on performance character development finds support in a sizable body of research demonstrating correlations between academic achievement and performance character strengths such as persistence and self-discipline. However, we present here data from three "No Excuses" charter middle schools highly similar to those in the KIPP and Achievement First networks that reveal *both* moral and performance character strengths to be predictive of students' achievement and conduct. We focused specifically on students' achievement and conduct because of the emphasis upon these particular outcomes at No Excuses schools through their college preparatory mission (achievement) and emphasis on a strict disciplinary environment (conduct). Our results point to the role that both types of character play in predicting positive outcomes for students.

## **RESEARCH CONTEXT**

Berkowitz and Hoppe (2009) define character as a "set of psychological characteristics that motivate and enable individuals to function as competent moral agents" and offer a conceptual model that distinguishes between performance and moral character strengths (p. 132). Performance character consists of the qualities that allow individuals to regulate their thoughts and actions in ways that support achievement in a particular endeavor (Davidson, Khmlekov & Baker, 2011; Sokol, Hammond, & Berkowitz, 2011). Examples of such qualities include persistence, self-discipline and grit. 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 and integrity. In distinguishing between moral and performance character strengths, Berkowitz and Puka (2009) have noted that performance character strengths are neither intrinsically good nor bad but rather “derivative of the ends toward which they are applied” (p. 108). In contrast, moral character strengths can be understood as “interpersonal ethical imperatives” that are intrinsically good independent of context (p. 108).

Below, we consider the extant research literature on the relationship between these different types of character and students’ academic achievement and school conduct. As this review makes clear, the majority of the studies investigating these relationships are correlational rather than causal; draw upon relatively small samples of elementary school children and/or high-achieving students; and consider a single character strength in isolation. The present study is correlational as well, but adds to the extant scholarship by considering the relationships between student achievement, student conduct and several moral and performance character strengths across a diverse sample of nearly 500 urban adolescents. In so doing, we seek to offer greater clarity about how various character strengths (uniquely and as a whole) contribute to achievement and conduct in a sample— youth of color from low-income urban communities— that is under-represented in the character development literature.

### **Character and Student Achievement**

The present study utilizes participating students’ grade point average as a measure of student achievement because a robust body of scholarship has found academic grades to be one of the strongest predictors of students’ high school performance and graduation (Allensworth & Easton, 2005, 2007; Kurlaender, Reardon, & Jackson, 2008; Neild & Balfanz, 2001; Zau & Betts, 2008), college performance and graduation (Camara & Echternacht, 2000; Geiser & Santelices, 2007; Hoffman, 2002; Hoffman & Lowitzski, 2005; Munro, 1981; Tross et al, 2000;

Zheng et al, 2002), and success in the labor market (Heckman, 2008; Miller, 1998). Other researchers have found that grade point average is a stronger and more consistent predictor of these outcomes than standardized test scores (Bowen, Chingos, & McPherson, 2009; Moffat, 1993; Roderick, Nagaoka, & Allensworth, 2006).

### ***Performance Character Strengths***

A robust body of scholarship details the relationship between student achievement and performance character strengths such as persistence, grit and self-discipline. Although distinct from one another, Farrington and colleagues (2012) classify all three of these performance character strengths as forms of academic perseverance— “an individual’s ability to stay focused on a goal despite short-term obstacles (persistence) or long-term obstacles (grit), and to forego distractions or temptations to prioritize higher pursuits over lower pleasures (self-discipline)” (Farrington et al., 2012, p. 9). Many of the studies linking these different forms of academic perseverance to grade point average utilized samples of university students (e.g. Duckworth, Peterson, Matthews & Kelly, 2007; Duckworth & Quinn, 2009; Hogan & Weiss, 1974; Willingham, 1985; Wolfe & Johnson, 1995). For example, Wolfe and Johnson (1995) reported that self-discipline predicted college students’ grade point averages more accurately than did their SAT scores. Likewise, Duckworth and colleagues (2007) found that undergraduates at an elite university who demonstrated high levels of grit also earned higher GPA’s than their peers, even when controlling for intelligence. These studies provide useful evidence of a relationship between achievement and perseverance among educated young adults who were primarily White and middle class, but cannot be easily generalized to younger and more diverse student populations.

Additionally, much of the research on perseverance and achievement among non-university samples focuses on individuals who have been identified as gifted or high-achieving. Among adults, Ericsson and colleagues (1993, 1996, 2006) have demonstrated that the strongest predictor of expert performance among chess players, musicians, mathematicians and neuroscientists is an ability to engage in thousands of hours of sustained and deliberated practice. Among youth, Terman (1947) and Winner's (1997) studies of gifted children revealed perseverance to be a stronger predictor than intelligence of success in adulthood. Likewise, Duckworth and colleagues (2007) found grit to be the strongest predictor of the likelihood of adolescent participants in the 2006 Scripps National Spelling Bee advancing to the final rounds of the competition. These studies offer further evidence of a relationship between perseverance and achievement among high-achieving youth and adults, but, again, cannot be easily generalized to broader populations.

Perhaps most relevant to the present study are two recent studies of eighth grade students from a northeastern city that found self-discipline to be a stronger predictor than IQ of students' academic grades, school attendance, hours spent doing homework, and acceptance into highly competitive high schools (Duckworth & Seligman, 2005, 2006). Limiting the generalizability of these findings, however, were the studies' relatively small sample of students from a single grade level and attending a selective magnet school to which they were admitted on the basis of their achievement on standardized test scores. In contrast, the present study seeks to consider the relationship between academic perseverance and student achievement across several grade levels in three different charter middle schools, to which students have been admitted via randomized registration lotteries. In so doing, the present study contributes to the extant research literature by examining this relationship among a broader sample of youth.

### *Moral Character Strengths*

The present study also considered the relationship between student achievement and several moral character strengths including empathy and academic integrity. Several scholars have reported a modest relationship between academic success and the moral character strength of empathy (Caprara, 2000; Feshbach & Feshbach, 1987; Green et al, 1980; Parker et al, 2004; Wentzel, 1993; Wong et al, 1995). For example, Caprara and colleagues (2000) found that elementary school children who engage in high levels of helping, sharing and consoling behaviors are significantly more likely to demonstrate high levels of academic achievement five years later as adolescents. Likewise, Feshbach and Feshbach (1987) found that children's empathy levels at age nine significantly predicted their achievement on reading and spelling tests two years later as eleven-year-olds. Another set of scholars have reported that academically gifted children demonstrate, on average, higher levels of compassion, caring and moral sensitivity than their non-gifted peers (Lovecky, 1997; Silverman, 1993; Roeper & Silverman, 2009; Tirri & Nokelainen, 2007). For example, in a study of Finnish adolescents, Tirri and Nokelainen found that, on average, academically gifted students demonstrated higher levels of caring behavior than their "academically average" peers.

Taken together, these studies offer evidence of a relationship between empathy and academic achievement; however, limiting their generalizability are samples focused nearly exclusively on middle class and affluent elementary school children and/or youth identified as gifted or high-achieving. Particularly given research that has shown a negative relationship between empathy and exposure to the violence that frequently occurs in low-income urban communities (Berman et al, 1996; Horowitz et al, 1995; Gladstein et al, 1992; Sams & Truscott,

2004; Schreiber, 1992), there is value in investigating the relationship between empathy and academic achievement among youth raised in such communities.

The relationship between student achievement and academic integrity is a more ambiguous one. On one hand, several researchers have reported that cheating behaviors are inversely related to achievement (Angell, 2006; Bunn et al, 1992; Antion & Michael, 1983; Cizek, 1999; Gardner et al, 1988; McCabe & Trevino, 1996; Newstead, Franklyn-Stokes, & Armstead, 1996). In other words, violations of academic integrity are most often committed by low achieving students. However, other scholars report that high achieving students are just as likely as low achieving students to report engaging in cheating behaviors (Anderman & Murdock, 2007; Jensen, Arnett, Feldman, & Cauffman, 2002; Stephens, Romakin & Yukhymenko, 2010; Taylor, Pogrebin, & Dodge, 2002; Who's Who, 1998). For example, a national survey conducted in 2000 by *Who's Who Among American High School Students* found that 80% of the 20,000 surveyed teenagers admitted to having cheated on a school assignment in the past year, and this figure held true for the portion of high schoolers within the group who reported maintaining 'A' averages (Bok, 2006). Other scholars have reported that cheating behaviors are particularly prevalent among high achieving students with low levels of academic self-efficacy and in school contexts that strongly emphasize academic grades and performance (Finn & Frone, 2004; Stephens & Wangaard, 2011). In short, then, there is a need for further research and greater clarity about the relationship between student achievement and academic integrity. Moreover, the present study's consideration of this relationship within a sample of early adolescents attending three urban middle schools adds valuable diversity to the aforementioned studies, which have focused primarily upon secondary and university students.

### ***School Connectedness***

When considering the research literature on student achievement, it is important to note the sizable body of scholarship linking achievement to school connectedness. School connectedness refers to the sense of acceptance, respect, support and caring that a student experiences in his or her school context (Juvonen, 2007). In a series of studies conducted across various grade levels and communities, school connectedness has been found to be a strong predictor of academic performance (Battistich et al., 1995; Cohen & Garcia, 2008; Furrer & Skinner, 2003; Goodenow & Grady, 1992; Solomon et al, 1996; Wentzel & Asher, 1995). For example, McClure, Yonezawa and Jones (2010) found 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. This finding parallels earlier scholarship that 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, Austin, & Lee-Bayha, 2004). Because we sought in the present study to offer greater clarity about the unique contributions of moral and performance character strengths in predicting student achievement, we include school connectedness as a control predictor in the analyses presented below.

### **Character and Student Conduct**

At all three schools in the present study, students were issued demerits from their classroom teachers for a variety of anti-social behaviors (e.g. disrupting class, inappropriate language) and merits for a variety of pro-social behaviors (e.g. working diligently with classmates, helping a confused peer). While there are few references to the use of merits in the research literature (Callahan et al., 2007; Hawes, 1924), a number of researchers have previously

utilized demerits as an indicator of student conduct. As early as 1938, researchers utilized demerits to consider the relationship between behavior and personality strengths in an institution for juvenile delinquents (Horsch & Davis, 1938). These researchers found that the character strengths of self-confidence, dominance, emotional stability and extroversion were all positively associated with misconduct. In a more recent study of 197 boys attending a Virginia boarding school, researchers utilized demerits to demonstrate the relationship between students' identity status and frequency of misbehavior (Wires, Barocas & Hollenbeck, 1986). Finally, in a study of 1600 high school students in Hong Kong, researchers utilized demerits as an indicator of student conduct and reported that student misconduct was significantly predicted by poor academic self-concept as well as poor relationships with one's parents and school (Leung & Lau, 1989). The present study built upon these earlier efforts by utilizing demerits to consider the relationship between student conduct and several moral and performance character strengths.

### ***Performance Character Strengths***

Several studies point to a significant negative relationship between the performance character strength of self-discipline and adolescents' engagement in aggressive and anti-social behaviors. Specifically, researchers have found self-discipline to be a moderate-to-strong predictor of adolescents' likelihood of engaging in anti-social behavior in cross-sectional studies of Dutch (Kemp et al, 2009), Hungarian (Vazsonyi et al, 2001) and Russian adolescents (Tittle & Botchkovar, 2005). In a study of African American youth raised in single parent households, Kim and Brody (2005) reported a highly significant relationship between self-discipline and adolescents' engagement in aggressive and delinquent behaviors. Likewise, Feldman and Weinberger (1994) found that the "self-restraint" demonstrated by a sample of 81 pre-adolescent

boys significantly predicted their engagement in delinquent behavior four years later as teenagers. Each of these studies offers useful evidence of a relationship between self-discipline and conduct; however, these studies take as their outcome variable serious delinquent behaviors including gambling, buying liquor, smoking marijuana, stealing from a store, selling illegal drugs, etc. The present study seeks to consider whether a similar relationship exists between middle school students' performance character strengths and their engagement in the more typical forms of misbehavior (e.g. passing notes, talking out of turn) present in a school context.

### ***Moral Character Strengths***

In terms of moral character strengths, a sizable body of scholarship involving adult samples has found relationships between empathy and a variety of pro-social behaviors such as doing volunteer work, returning incorrect change, giving money to a homeless person, doing a favor for a friend and donating money to charity (Unger & Thumhuri, 1997; Oswald, 2003; Patterson, Reniers, & Vollm, 2009; Wilhelm & Bekkers, 2010). Among youth, scholars have found empathy to predict adolescents' ability to maintain peer relationships (Adams, 1983; Schonert-Reichl, 1993) and their likelihood of aiding a classmate being bullied (Gini et al., 2007). In terms of disruptive or anti-social behaviors, several scholars have found that children and teenagers who engage in frequent bullying demonstrate lower levels of empathic concern than non-bullies (Ireland 1999; Joliffe & Farrington 2006). Beyond the research on bullying, however, few scholars have considered the relationship between empathy and other forms of school-based misconduct. This gap in the research literature is likely due, in large part, to the difficulty of assessing the frequency of misbehavior that does not rise to the severity of detention, suspension or expulsion. However, the demerit system at the three schools in the present study serves as a useful measure of low-level misconduct and provides an opportunity to

consider the extent to which such conduct is predicted by empathy and other moral character strengths.

There are also a handful of studies that point to a relationship between students' conduct and academic integrity. At the university level, a number of researchers have found that students' commitment to academic integrity correlates negatively with anti-social behaviors such as substance abuse, risky driving and false excuse-making (Blankenship & Whitley, 2000; Lucas & Friedrich, 2005; Mustaine & Tewksbury, 2005). Other researchers reported a similar negative relationship between academic integrity and college students' self-report on their likelihood of cheating on a romantic spouse/partner, being arrested for drinking and driving, and faking illness to avoid school or work (Lovett-Hooper et al, 2007). Little research, however, has considered the relationship between academic integrity and conduct among younger students. More broadly, researchers have found that adolescents' sense of moral identification positively predicts their engagement in pro-social behaviors (Arnold, 1993) and negatively predicts their engagement in anti-social behaviors (Barriga et al, 2001). In the present study, then, we seek to build upon this existing scholarship among adolescents and college students by considering the relationship between middle school students' moral character strengths such as integrity and their school conduct, as measured by receipt of demerits.

Finally, when considering the research literature on student conduct, it is important to note that much of the extant scholarship focuses on the disproportionate engagement of male students and African American students in school discipline systems. In terms of gender, researchers have found that male students of all racial and ethnic groups are more likely than their female classmates to receive disciplinary sanctions (Bain & MacPherson, 1990; Cooley, 1995; Gregory et al, 1996, 2010; KewelRamani et al, 2007; Shaw & Braden, 1990). Similarly,

researchers have found African American students to be significantly more likely than White students to be suspended or expelled (Krezmien, Leone, & Achilles, 2006; Losen, 2011) as well as referred to the office or detention (Skiba et al, 2002; Wallace et al, 2008). Also relevant to the present study is research that has found increases in delinquency and cheating behaviors as students move from the sixth grade to the seventh grade (Luthar & Latendresse, 2005). As noted above, we sought in the present study to consider the unique contributions of moral and performance character strengths in predicting student achievement and conduct. Toward this end, demographic variables such as gender, race/ethnicity and grade level are included as control predictors in the analyses presented below.

In summary, there is evidence in the research literature that a number of different moral and performance character strengths (as well as demographic factors) predict student achievement and conduct. However, many of the studies reporting these findings focus on relatively small samples of elementary school children, university students, and high-achieving students. Moreover, few of these studies consider which types of character strengths uniquely predict student outcomes or the net impact of character strengths as a whole. Given the emphasis on performance character at several leading “No Excuses” charter school networks, we sought in the present study to investigate whether both performance and moral character strengths predict the achievement and conduct of nearly 500 urban adolescents attending several ‘No Excuses’ charter middle schools.

## **METHODS**

This study’s participants consisted of 488 middle school students (grades 6-8) between the ages of ten and fourteen years old attending the Classical Academy, Civitas Preparatory and

Collegiate Bound charter schools.<sup>1</sup> Charter schools are publicly funded schools that are supervised by state boards of education rather than a local superintendent or school committee (Angrist et al, 2010). All three schools in the present study are located within a few miles of each other in the same northeastern city and admit students from any neighborhood in the city through randomized registration lotteries. All three schools can also be characterized as high performing in that the percentage of their student bodies scoring advanced or proficient on statewide high-stakes assessments are significantly higher than the percentages of students scoring advanced or proficient city-wide and statewide.

As noted in the *Introduction*, all three schools in the present study can also be characterized as ‘No Excuses’ schools. ‘No Excuses’ is a term used to describe high-poverty public schools featuring a strict disciplinary environment, extended time in school, a college preparatory mission and an intensive focus on traditional reading and mathematics skills (Carter & Myerson, 2000). ‘No Excuses’ charter school networks such as KIPP, Achievement First and Uncommon Schools are responsible, in large part, for the surge of interest in character education focused on performance character development. As a result, we sought out for this study three ‘No Excuses’ charter schools highly similar to those found in these charter networks in terms of their pedagogy, practices and school culture. We focused our efforts on the ability of moral and performance character strengths to predict students’ achievement and conduct because of the emphasis upon these particular outcomes at No Excuses schools through their college preparatory mission (achievement) and valuing of a strict disciplinary environment (conduct).

The summary statistics for students from all three schools in terms of gender, grade and race/ethnicity are presented in Table 1 below. As can be seen in Table 1, the three schools are

---

<sup>1</sup> All three schools are referred to by pseudonyms

roughly proportional in terms of their gender and grade level demographics. Also evident in Table 1 below is that the student bodies of all three schools are comprised predominantly of youth of color, with more than 90% of participating students identifying as African American, Latino or multi-racial. In terms of socioeconomic status, 73% of Classical Academy students, 76% of Collegiate Bound students and 54% of Civitas Prep students qualified for free or reduced price lunch— a proxy for low socioeconomic status.

INSERT TABLE 1 HERE

### **Data Collection**

Students at all three schools completed surveys in the opening week of the 2010-2011 school year (Time<sub>1</sub>) and then completed a similar survey at the conclusion of the academic year in June of 2011 (Time<sub>2</sub>). The survey tool consisted of measures that were aligned with the character strengths cited as core values of one or more of the participating schools: courage, empathy, integrity, perseverance and social responsibility. Empathy, integrity and social responsibility can be characterized as moral character strengths because they represent qualities necessary for engaging in successful personal, professional and civic relationships. Perseverance and courage can be characterized as performance character strengths because they represent qualities that support achievement of a particular endeavor. In classifying these various character strengths, we were also guided by Berkowitz and Puka's (2009) assertion that performance character strengths are neither intrinsically good nor bad but rather "derivative of the ends toward which they are applied" while moral character strengths can be understood as "interpersonal ethical imperatives" (p. 108). Also included on the surveys completed by students were demographic questions about students' gender, race/ethnicity, grade level and a two-item

measure of school connectedness. More comprehensive descriptions of each measure are presented below.

At the conclusion of the 2010-2011 academic year, we also collected from administrators at the three schools student-level data on academic achievement (grade point average) and student behavior (demerits) that served as the outcome variables in our analyses. All three schools graded students academically on a traditional 100 point scale in which 90-100 represented an A, 80-89 represented a B, 70-79 represented a C, 60-69 represented a D, and grades falling below 60 were failing. At all three schools, students were issued demerits from their classroom teachers for a variety of forms of misbehavior that included disrupting class, inappropriate language, disrespectful behavior, chewing gum, a uniform violation, etc. At each school, the receipt of a particular number of demerits resulted in either an after-school or a Saturday detention.

### **Measures**

This study's integrity measure consisted of four items adapted from Stephens et al's (2007) Academic Motivation and Integrity Survey (Moral Disengagement Sub-Scale). These items solicited students' response to 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.' Students responded to these items along a 5-point Likert scale in which a "1" represented a willingness to engage in such behaviors and a "5" represented a resistance to engaging in such behaviors. 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  $\alpha = .74$ ).

This study's empathy measure consisted of six items adapted from Funk et al's (2008) Children's Empathic Attitudes Questionnaire. These items solicited students' agreement or disagreement along a 5-point Likert scale with several statements describing the extent to which they would feel bothered by witnessing an upset classmate, a classmate without any friends, or a classmate who has gotten into trouble. Exploratory factor analysis (promax rotation) with these items resulted in one factor with an eigenvalue greater than one (eigenvalue = 2.60) accounting for 43% of the variance and showing acceptable internal consistency reliability (Cronbach's  $\alpha = .73$ ).

This study's social responsibility measure consisted of six items adapted from Pancer et al'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 (promax rotation) with these items resulted 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  $\alpha = .70$ ).

This study's perseverance measure consisted of four items adapted from Park and Peterson's (2006) Values in Action Inventory of Character Strengths in Youth. These items solicited students' agreement or disagreement with several statements regarding the extent to which they followed through on homework assignments, paid attention in class when bored, and characterized themselves as a hard worker. Students responded to these items along a 5-point Likert scale in which "1" represented "Not like me at all" and a "5" represented "A lot like me." EFA (promax rotation) with these items resulted 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  $\alpha = .77$ ).

This study's courage measure consisted of three items adapted from Park and Peterson's (2006) Values in Inventory of Character Strengths of Youth that questioned students about the extent to which they defended peers being treated unfairly, tried to do the right thing even if it means getting teased for it, and tell their friends when they think they are 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  $\alpha = .66$ ).

Finally, this study's school connectedness measure consisted of two survey items adapted from Flanagan et al'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. Students responded to these items along a 5-point Likert scale in which a "1" represented strong disagreement with the given statement and a "5" represented strong agreement with the given statement. 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  $\alpha = .60$ ). The relatively low reliabilities of the courage and school connectedness measures are addressed further in the *Discussion*.

## **Data Analysis**

Our approach to analyzing the relationships between our character strengths data, achievement data and student conduct data was an exploratory one. First, exploratory factor

analysis (EFA) was conducted to form composites from the survey items completed by this study's participants for each of the five tested character strengths (integrity, empathy, social responsibility, perseverance and courage). As noted above, each of the tested character strengths was cited as a core value by one or more of the participating schools.

Before carrying out our analyses of interest for each of these measures, we first made scatterplots of our two outcome variables (grade point average, demerits) against each independent variable in order to assess whether linear or quadratic relationships existed. When scatterplots and a superimposed Lowess curve indicated a quadratic relationship, we created a squared term for that variable, which was included in all subsequent models. For those variables included in a model as both a linear and squared term, joint hypothesis tests were conducted to determine whether the total effect of the variable was different from zero. We wanted to control for school and grade effects but because we were not interested in the effects of individual schools or grades, variables associated with schools and grades were also submitted to a joint hypothesis test to determine total school and grade effects, respectively.

We initially ran a series of ordinary least squares regression models; however, for both outcomes, the models produced several extreme outliers, and the residual distributions did not pass statistical tests of normality and heteroscedasticity. As a result, we fit quantile regression models because such models do not make strict assumptions about distributions and are robust to outliers (Hao & Naiman, 2007); further, we used the bootstrap method to obtain robust standard errors. Quantile regression estimates the median rather than the mean, which is a more appropriate measure of central tendency for skewed data like we observed for our outcome variables.

For each model, we included a number of control predictors such as school attended, gender, race/ethnicity, grade level and feelings of school connectedness. As noted in the *Introduction*, these control predictors were included in the models due to reports in the existing research literature on significant relationships between disciplinary referrals, gender and race/ethnicity; academic achievement and gender; anti-social behaviors and grade level; and finally academic achievement and school connectedness. We also included in the model our predictors of interest: the five character strengths (integrity, empathy, social responsibility, perseverance and courage) for which we had included measures on our survey tool. The models for both grade point average and demerits are presented below and then described in greater detail in the *Results*.

$$\text{Grade Point Average}_i = B_0 + B_1\text{School}_i + B_2\text{GradeLevel}_i + B_3\text{Gender}_i + B_4\text{Race}_i + B_5\text{Demerits}_i + B_6\text{Merits}_i + B_7\text{SchoolConnect}_i + B_8\text{Perseverance}_i + B_9\text{Courage}_i + B_{10}\text{Integrity}_i + B_{11}\text{Empathy}_i + B_{12}\text{SocialResp}_i + \varepsilon_i$$

$$\text{Total Demerits}_i = B_0 + B_1\text{School}_i + B_2\text{GradeLevel}_i + B_3\text{Gender}_i + B_4\text{Race}_i + B_5\text{GPA}_i + B_6\text{Merits}_i + B_7\text{SchoolConnect}_i + B_8\text{Perseverance}_i + B_9\text{Courage}_i + B_{10}\text{Integrity}_i + B_{11}\text{Empathy}_i + B_{12}\text{SocialResp}_i + \varepsilon_i$$

where:

- $B_0$  is the intercept parameter
- $B_1$ - $B_7$  represents the effects of control predictors on the outcome
- $B_8$ - $B_{12}$  represents the effects of tested character strengths on the outcome

## RESULTS

The summary statistics for Classical Academy, Collegiate Bound and Civitas Prep students on the Time 2 integrity, perseverance, grade point average and demerits measures are presented in Table 2 below. As is evident in Table 2, there are only small differences in students' mean scores across the three schools on the two character measures as well as grade point average. In contrast, students at Civitas Prep received significantly fewer demerits, on average,

than their peers at Classical Academy and Collegiate Bound. Observations conducted at the three schools suggest that this disparity was due to Civitas Prep faculty assigning fewer demerits to students for misbehavior rather than students at Civitas Prep actually engaging in fewer disruptive or antisocial behaviors than their peers at the other two schools. This difference in assignment of demerits is accounted for in the models reported below through the use of dummy variables as control predictors.

INSERT TABLE 2 HERE

Because the variables in this study were not all linearly related to one another, Spearman's rank correlations are presented in Table 3. Of note, grade point average was negatively related to demerits and weakly-to-moderately related to the character strengths variables. The demerits measure was negatively related to nearly all of the character strengths variables—the exception was the non-relation with courage. Finally, all of the character strengths variables were moderately correlated with one another, with the strongest relationship being between empathy and social responsibility ( $r_s = .69$ ).

INSERT TABLE 3 HERE

### **Student Achievement**

The final model for participating students' grade point average is reported in Table 4 below. As is evident in Table 4, perseverance ( $p = .001$ ), school connectedness ( $p = .03$ ) and grade level ( $p = .001$ ) are significant positive predictors of students' academic achievement while integrity ( $p = .04$ ) and demerits ( $p < .001$ ) are significant negative predictors of student achievement, controlling for the other variables in the model. In sum, middle school students across the three schools who reported the highest levels of academic achievement were also the students, on average, who demonstrated high levels of perseverance, felt highly connected to

their school communities, received few demerits and demonstrated a weak commitment to academic integrity. Recall that perseverance can be characterized as a performance character strength while integrity can be characterized as a moral character strength. Both types of character strengths play significant and independent roles in predicting student achievement.

In terms of the magnitude of these relationships between students' character strengths and academic achievement, the Pseudo  $R^2$  statistic for the academic achievement model presented in Table 3 is .19. This means that approximately 19% of the variance in participating students' academic achievement can be accounted for by the combination of demographic variables and character strengths presented below. When this same model for academic achievement is considered *without* the character strengths included, the Pseudo  $R^2$  statistic is .13. It would seem, then, that the character strengths of perseverance and integrity are accounting for approximately 6% of the variance in academic achievement among middle school students in the present sample.

INSERT TABLE 4 HERE

### **Student Conduct**

The model for student conduct as measured by demerits is also reported in Table 4. Across the three schools, there are both demographic variables and character strengths that are significant predictors of students' likelihood of earning demerits for disruptive or anti-social behaviors. In terms of demographic variables, there was a significant effect of school ( $p < .001$ ), grade level ( $p = .03$ ) and grade point average ( $p < .001$ ). Additionally, students who identified as male were more likely to receive demerits than their female peers ( $p = .02$ ). Likewise, students

who identified as African American were significantly more likely to receive demerits than students who identified as White, Latino or multi-racial ( $p = .05$ ).

In terms of character strengths, joint hypothesis tests revealed that students' commitment to acting with integrity was approaching significance ( $p = .08$ ) as a negative predictor of students' receipt of demerits. In other words, students who demonstrated high levels of integrity earned, on average, fewer demerits than their classmates. This finding would suggest that although high levels of integrity correlate with lower grade point averages, students who possess high levels of integrity are also less likely to engage in disruptive or anti-social behaviors that would compromise their (and their classmates') engagement in learning. Academic integrity—a moral character strength—was the only character strength among the tested variables found to be a significant or nearly significant predictor of student conduct. The implications of these findings are taken up in the *Discussion*.

In terms of the magnitude of the character strengths in predicting student conduct, the Pseudo  $R^2$  statistic for the student conduct model presented in Table 4 is .17. This means that approximately 17% of the variance in participating students' conduct can be accounted for by the combination of demographic variables and character strengths presented above. When this same model for student conduct is considered *without* the character strengths included, the Pseudo  $R^2$  statistic is .15. It would seem, then, that the character strength of integrity accounts for approximately 2% of the variance in conduct among middle school students in the present sample.

## **DISCUSSION**

The present study found that both perseverance (a performance character strength) and integrity (a moral character strength) predicted key student outcomes among nearly 500 early

adolescents attending three ‘No Excuses’ urban charter schools. Because 90% of these students identified as youth of color and more than two thirds came from low-income households, this study offers an important look at the role of character strengths in predicting student success among a population that is under-represented in the character development scholarship. Below, we consider our findings in greater detail and discuss their implications for researchers, educators and other stakeholders committed to promoting the success of youth from under-served urban communities.

### **Character and Achievement**

A sizable body of research has found performance character strengths such as persistence and self-discipline to predict student achievement. The present study found as well that urban middle school students’ academic perseverance was a highly significant predictor of their cumulative grade point average. Such a relationship between perseverance and achievement makes intuitive sense in that one’s ability to persevere on a long-term project or pay attention during a classroom lecture would seem to directly impact one’s mastery of the academic content embedded in that project or lecture. Nonetheless, because the findings presented in the present study— as well as in virtually all of the extant research literature— are correlational rather than causal, one cannot assert that strengthening students’ perseverance will result in higher levels of academic achievement. Moreover, there is little evidence of the malleability of an individual’s perseverance as a general character trait (Farrington et al, 2012).

That said, there is a growing body of evidence in the research literature that students demonstrate differing levels of perseverance on an academic task under differing classroom conditions related to the scaffolding they receive in completing the task and their perception of their likelihood of carrying out the task successfully (e.g. McCrae & Costa, 1994, Roberts & Del

Vecchio, 2000). Drawing on this research, scholars have speculated that changes in classroom context can increase students' academic perseverance and, in so doing, increase students' grade point average (Farrington et al, 2012). For example, at one of the three schools in the present study, Collegiate Bound Charter School, sixth grade students received support from their advisory teachers in developing a study schedule for the weeks leading up to their mid-year exams. Such scaffolding may increase students' motivation and ability to persevere in preparing for their mid-year exams and, in so doing, lead to higher scores on these examinations (and, thus, their grade point averages). Certainly more research is needed on the effects of this specific intervention as well as this proposed relationship between perseverance and student achievement. Given the findings described above and in the present study, however, one might tentatively expect to see better academic results when educators actively seek out and implement the classroom supports that strengthen their students' ability to persevere on particular academic tasks.

The present study also found the moral character strength of integrity to be a significant negative predictor of academic achievement. Students who expressed the greatest commitment to integrity in their academic work were also, on average, the students who earned the lowest academic marks. Because our integrity measure focused on students' *willingness* to engage in dishonest behaviors such as cheating or plagiarism, this negative relationship between achievement and academic integrity can be interpreted in several different ways. The simplest explanation is that the students most willing to compromise their integrity earned higher academic grades precisely because of the effect of the cheating behaviors themselves. A more benign possibility is that the students who were *willing* to cheat on an assignment in order to earn a higher grade were also the students most invested in earning high academic marks.

Certainly more research is necessary to understand this relationship between academic integrity and student achievement. Underlying both of the interpretations offered in the preceding paragraph, however, would seem to be the intensive emphasis at all three schools in the present study (and in ‘No Excuses’ schools more broadly) upon academic achievement and college readiness. Recall from the *Introduction* that scholars have found cheating behaviors to be most prevalent in school contexts that strongly emphasize outcomes such as academic grades or acceptance to prestigious colleges and universities (Finn & Frone, 2004; Wangaard & Stephens, 2011). Put another way, students are more likely to compromise their integrity in school communities that place an intensive emphasis upon performance. Perhaps, then, the intensive emphasis upon academic performance at the three schools in our study exerted an unintended but significant effect upon students’ willingness to engage in dishonest behaviors such as cheating and plagiarism.

At the Civitas Preparatory Charter School, for example, students took interim assessments (referred to colloquially as A-Nets) every six weeks that were modeled after the high-stakes state assessments that students must pass each spring. Students who performed well on these interim assessments were publicly celebrated at community meetings and received T-shirts proclaiming them to be “A-Net All-Stars.” Perhaps such public recognition of academic performance increased students’ willingness to compromise their integrity in order to earn similar recognition. Certainly this description of a causal pathway between student achievement and academic integrity is a speculative one; however, there would be great value in future research efforts designed to test whether such celebrations of academic performance result in declines in students’ commitment to achieving with integrity.

Finally, it is important to note that two other control variables—students' receipt of demerits and feelings of school connectedness—were significant predictors of academic achievement as well. In terms of demerits, students across all three schools who earned the greatest number of demerits were, on average, the students who earned the lowest grade point averages. This negative relationship between achievement and conduct aligns with the extant research literature (e.g. Malecki & Elliott, 2002; Wentzel, 1993). Neither the present study nor these prior studies established a causal relationship between student conduct and achievement, but one explanation that has been offered for this relationship is that students who engage in relatively few disruptive or anti-social behaviors allow their teachers greater opportunities to engage them in effective teaching and learning (Greenberg et al., 2003; Wentzel, 1993). A second possibility is that educators tend to reward students who exhibit good behavior with higher academic grades (Austin & McCann, 1992; Cross & Frary, 1999).

In terms of school connectedness, students across all three schools who earned the highest grade point averages were also the students who described the strongest feelings of connection to their respective school communities. These findings reinforce a robust body of scholarship on the positive relationship between academic achievement and school connectedness (Benninga et al, 2003; Hanson et al, 2004; McClure et al., 2010). Neither the present study nor these earlier research efforts establish a causal direction between student achievement and school connectedness, though a number of scholars have speculated that the relationship is likely bi-directional (Benninga, 2003; McClure, Yonezawa, & Jones, 2010). Namely, students who feel a strong personal connection to their teachers and classmates are likely to put greater effort into their school work and, in so doing, to earn higher academic grades. Likewise, students who earn high academic grades are likely to experience a greater

sense of connection to their school community as a result of this form of positive reinforcement from their teachers.

At all three schools, weekly community meetings and advisory groups were utilized to foster students' sense of connection to their respective school communities. Although these practices have been shown to increase participating students' sense of trust and belonging (Galassi, Gullledge, & Cox, 1997; Ziegler & Mulhall, 1994) and improved relationships between students and teachers (Espe, 1993; Totten & Nielson, 1994), more research is necessary to demonstrate their direct effect upon student achievement. While the present study does not provide evidence of a causal relationship between student achievement and school connectedness, it is notable that school connectedness was found to be a positive and independent predictor of student achievement. In other words, school connectedness makes a unique contribution to predicting student achievement separate and apart from the moral and performance character strengths described above.

### **Character and Conduct**

We also reported in our *Results* on the multiple predictors of student conduct across the three schools in our study, as measured by demerits. One of the core principles of 'No Excuses' schools is that promoting student success requires a strict disciplinary environment in which effective teaching and learning can take place (Carter & Myerson, 2000). Moreover, both the extant research literature (e.g. Malecki & Elliott, 2002; Wentzel, 1993) and the present study offer evidence of a negative relationship between academic achievement and engagement in disruptive or anti-social behaviors. For all of these reasons, there would seem to be value in better understanding the character strengths that predict students' school conduct.

In the present study, a number of demographic control variables (grade level, grade point average, gender and race/ethnicity) were significant predictors of students' receipt of demerits. Specifically, the students most likely to receive high numbers of demerits were African American, male, in the seventh grade, with low grade point averages. Each of these demographic variables has been previously reported on in the extant research literature. Specifically, both male students and African American students have been found to be disproportionately sanctioned in middle and secondary schools (Bain & MacPherson, 1990; Gregory et al, 2010; KewelRamani et al, 2007; Krezmien, Leone, & Achilles, 2006; Losen, 2011; Shaw & Braden, 1990; Skiba et al, 2002; Wallace et al, 2008). Likewise, researchers have found significant increases in delinquent behaviors as children move from the sixth to the seventh grade (Luthar & Latendresse, 2005).

The single character strength in our model that predicted student conduct at a level approaching significance was integrity. Specifically, the students who demonstrated the strongest commitment to approaching their academic work with integrity received, on average, the fewest number of demerits. The present study cannot offer a causal explanation of this relationship; however, as noted above, prior studies have found that students demonstrate increases in their commitment to academic integrity when teachers emphasize mastery learning goals over performance goals (Stephens, 2005; Wangaard & Stephens, 2011). In other words, students are more committed to achieving with integrity when they perceive the goal of their learning to be mastering academic content rather than earning high academic marks. One potential explanation, then, for the relationship between academic integrity and student conduct is that strengthening students' investment in mastering academic content simultaneously increases their commitment

to achieving with integrity and decreases their motivation to engage in behaviors that will disrupt the teaching and learning process.

At Classical Academy Charter School's weekly community meeting, the DuBois Award is presented each week to a student who has exemplified the integrity and scholarship of W.E.B DuBois—the first African American to earn a Phd from Harvard and a founder of the National Association for the Advancement of Colored People (NAACP). In so doing, Classical Academy strives to offer students a weekly reminder of the ways in which an individual can draw upon his or her learning to change the world. Certainly more research is needed to test the effects of this specific intervention as well as this hypothesized relationship between mastery learning goals, academic integrity and student conduct. If emphasizing mastery learning goals can be shown to directly impact student integrity and conduct, however, then there may be great value in practices such as the DuBois Award at Classical Academy that seek to heighten students' investment in learning rather than simply achievement.

### **Limitations and Future Research**

One limitation of many of the prior research studies on performance and moral character strengths are relatively small samples drawn from highly selective magnet schools, private universities, and gifted and talented programs. The majority of these prior studies have focused, as well, on White youth from middle class and affluent backgrounds. The present study drew upon a very different sample comprised predominantly of low-income youth of color attending three 'No Excuses' charter schools in the same northeastern city. On one hand, the generalizability of our findings is aided by the fact that students are selected into all three of these charter schools via randomized registration lotteries open to any youth in the city. However, as noted in the *Introduction*, 'No Excuses' schools offer students a highly specific

educational experience featuring a strict disciplinary environment, extended school day and year, and college preparatory mission. In other words, although the schools themselves are not highly selective, the experience of attending such a school is a highly specific one, and the results of the present study may not be broadly generalizable to youth attending more traditional urban public schools. As such, there would be great value in replicating this study in a set of more traditional urban public middle schools.

A second limitation to this study was the low reliability of the two-item school connectedness measure and the three-item courage measure. Although the items comprising both of these measures were adapted from previously validated scales, exploratory factor analysis revealed both of these measures to demonstrate questionable 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.

Finally, the most significant limitation to this study is that the research design cannot demonstrate a causal relationship between students' character strengths, academic achievement and school conduct. Our initial intention was to present a single structural equation model that considered the relationship between student achievement, student conduct and the various character strengths; the zero-order correlations presented in Table 3 suggest that these three latent variables are related and that an SEM analysis might be a fruitful endeavor. However, our data (in particular, the demerits data) across the three schools was so skewed (leading to our use of quantile regression) that the multivariate normality necessary for fitting a structural equation model could not be established. As a result, though we have reported in the *Results* that academic achievement is predicted positively by academic perseverance, and that student conduct is

predicted negatively by academic integrity, we can only speculate that attempts by educators to strengthen the perseverance and integrity of their students will have a beneficial effect upon these students' grade point averages and receipt of demerits respectively. In this way, the present study joins a number of others in the extant research literature that shed relatively little light on "the extent to which particular factors can be intentionally developed in classroom and school contexts, as well as whether changing them would actually improve student performance" (Farrington et al, 2012, p. 13).

That said, having identified several character strengths that predict student achievement and conduct, we aspire in future research efforts to assess the impact of particular interventions designed to strengthen participating students' commitment to acting with perseverance or integrity. For example, one of the three schools in the present study, Classical Academy, has developed an ethical philosophy curriculum with the goal of increasing participating students' commitment to achieving with integrity. A useful assessment of the effects of this curriculum upon participating students would involve an experimental design in which half of the incoming sixth grade students at Classical Academy are randomly assigned to participate in the ethical philosophy curriculum while the other half participate in a curriculum focused on an unrelated topic such as health. By comparing the two groups' shifts in academic integrity over the course of the academic year, as well as their grade point averages and receipt of demerits, we could begin to draw more concrete conclusions about the effects of such an intervention upon participating students' integrity, as well as the role of this moral character strength in mediating student achievement and conduct.

A similar experiment could test the effects of a classroom-based strategy designed to foster participating students' academic perseverance. For example, KIPP co-founder Dave Levin

has explained that one of the ways in which faculty and leaders in KIPP schools emphasize performance character development is through dual-purpose instruction— “the practice of deliberately working explicit talk about character strengths into every lesson” (Tough, 2011). A KIPP English teacher, for example, might explicitly focus students’ discussion of a novel upon a particular character’s self-discipline or grit, and a KIPP math teacher might incorporate character strengths such as perseverance or self-control into students’ word problems. A useful experiment, then, might entail randomly assigning half of the middle school faculty at a number of KIPP schools to engage in such dual-purpose instruction. By assessing participating students’ shifts in perseverance over the course of the academic year in comparison to their peers who did not receive such dual-purpose instruction, as well as these two groups’ grade point averages and demerits, one could begin to draw firmer conclusions about the effects of such a practice as well as the relationship between academic perseverance and academic achievement. These future research efforts will offer educators and other stakeholders more tangible implications regarding the relationship between key student outcomes and a number of moral and performance character strengths.

## **Conclusion**

In recent years, a number of high-profile charter management organizations have identified cultivating students’ performance character as a key lever in promoting student success. Schools in the KIPP charter network have even begun issuing to students a “character report card” that provides feedback on eight performance character strengths including grit, self-control, optimism and zest (Tough, 2011). In the present study, we have sought to highlight the role of *both* performance and moral character strengths in predicting student success. Our findings suggest that charter organizations such as KIPP would do well to add moral character

strengths such as integrity to their ‘character report cards’ and other forms of character education programming.

In demonstrating the role of both moral and performance character in predicting student success, we have sought to be cautious in the magnitude of our claims. As noted in the *Results*, the percentage of the variance in academic achievement and school conduct predicted by students’ character strengths was relatively small. That said, educators at all three of the schools featured in the present study— as well as those in thousands of other public, private and charter schools— are working diligently every day to help their students from under-served urban communities develop the academic and social skills necessary to compete with youth from more affluent and better-resourced communities. If this work to close the achievement gap is to be successful, educators must draw upon every tool at their disposal to support student success. The present study suggests that cultivating students’ moral and performance character strengths represent important tools in this endeavor.

## References

- Achievement First (2012). Achievement gap and mission. Retrieved on April 3, 2012 from <http://www.achievementfirst.org/our-approach/achievement-gap-and-mission>.
- Adams, G. (1983). Social competence during adolescence: Social sensitivity, locus of control, empathy and peer popularity. *Journal of Youth & Adolescence*, 12, 203-211.
- Allensworth, E. & Easton, J. (2005). *The on-track indicator as a predictor of high school graduation*. Chicago, IL: University of Chicago Consortium on Chicago School Research.
- Allensworth, E. & Easton, J. (2007). *What matters for staying on-track and graduating in Chicago Public Schools*. Chicago, IL: University of Chicago Consortium on Chicago School Research.
- Anderman, E. M., & Murdock, T. B. (Eds.). (2007). *Psychology of academic cheating*. Amsterdam: Academic Press.
- Angell, L. (2006). The relationship of impulsiveness, personal efficacy and academic motivation to college cheating. *Contemporary Educational Psychology* 29(4), 499-517.
- Angrist, J., Dynarski, S., Kane, T., Pathak, P., & Walters, C. (2010). Who benefits from KIPP? Cambridge, MA: *NBER Working Paper No. 15740*.
- Antion, D. & Michael, W. (1983). Short-term predictive validity of demographic affective, personal and cognitive variables in relation to two criterion measures of cheating behaviors. *Educational and Psychological Measurement*, 43, 467-482.
- Arnold, M. (1993). *The place of morality in the adolescent self*. Unpublished doctoral dissertation, Harvard University.
- Austin, S. & McCann, R. (1992). *Here's another arbitrary grade for your collection: A state-wide study of grading policies*. Paper presented at the Annual Meeting of the American Educational Research Association, San Francisco, CA.
- Bain, A., & MacPherson, A. (1990). An examination of the system-wide use of exclusion with disruptive students. *Australia and New Zealand Journal of Developmental Disabilities*, 16, 109-123.
- 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
- Battistich, V., Solomon, D., Kim, D., Watson, M., & Schaps, E. (1995). Schools as communities, poverty levels of student populations, and students' attitudes, motives, and performance: A multilevel analysis. *American Educational Research Journal*, 32, 627-658.

- 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(2), 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: Sense Publishers.
- Berman, S., Kurtines, W., Silverman, W., & Serafini, L. (1996). The impact of exposure to crime and violence on urban youth. *American Journal of Orthopsychiatry*, 66(3), 329-336.
- Blankenship, K. & Whitley, B. (2000). Relation of general deviance to academic dishonesty. *Ethics & Behavior*, 10, 1-12.
- Bok, D. (2006). *Our underachieving colleges*. Princeton, NJ: Princeton University Press.
- Bowen, D., Chingos, M., & McPherson, M. (2009). *Crossing the finish line: Completing college at America's public universities*. Princeton, NJ: Princeton University Press.
- Bunn, D., Caudhill, S., & Gropper, D. (1992). Crime in the classroom: An economic analysis of undergraduate student cheating behavior. *Journal of Economic Education*, 23(3), 197-207.
- Callahan, E., Everett, K., Fortin, S., & Sullivan, K. (2007). *Boston Collegiate Charter School: Five keys to creating a successful college-prep program*. Boston, MA: Massachusetts Charter Public School Association.
- Camara, W. & Echternacht, G. (2000, July). *The SAT I and high school grades: Utility in predicting success in college*. The College Board Research Notes, RN-10, 1-12.
- Caprara, G., Barbaranelli, C., Pastorelli, C., Bandura, A., & Zimbardo, P. (2000). Prosocial foundations of children's academic achievement. *Psychological Science*, 11(4), 302-306.
- Carter, S. & Myerson, A. (2000). *No excuses: Lessons from 21 high-performing, high-poverty schools*. Washington DC: Heritage Foundation.
- Cizek, G. (1999). *Cheating on tests: How to do it, detect it, and prevent it*. Mahwah, NJ: Erlbaum.
- Cohen, G., & Garcia, J. (2008). Identity, belonging, and achievement: A model, interventions, implications. *Current Directions in Psychological Science*, 21(3), 365-369.

Cooley, S. (1995). *Suspension/expulsion of regular and special education students in Kansas: A report to the Kansas State Board of Education*. Topeka, KS: Kansas State Board of Education (ERIC No. 395403).

Cross, L. & Frary, R. (1999). Hodgepodge grading: Endorsed by students and teachers alike. *Applied Measurement in Education*, 12(1), 53-72.

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.

Duckworth, A. & Seligman, M. (2005). Self-discipline outdoes IQ in predicting academic performance of adolescents. *Psychological Science*, 16(12), 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(6), 1087-1101.

Duckworth, A., & Quinn, P. (2009). Development and validation of the short grit scale (grit-s). *Journal of Personality Assessment*, 91, 166-174.

Ericsson, A., Krampe, R., & Tesch-Romer, C. (1993). The role of deliberate practice in the acquisition of expert performance. *Psychological Review* 100(3), 363-406.

Ericsson, A., & Lehmann, A. (1996). Expert and exceptional performance: Evidence of maximal adaptation to task constraints. *Annual Review of Psychology*, 47, 273-305.

Ericsson, A. (2006). The influence of experience and deliberate practice on the development of superior expert performance. In A. Ericsson et al. (Eds.), *Cambridge Handbook of Expertise and Expert Performance* (683-704). New York: Cambridge University Press.

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

Farrington, C., Roderick, M., Allensworth, E., Nagaoka, J., Keyes, T., Johnson, D., & Beechum, N. (2012). *Teaching adolescents to become learners: The role of noncognitive factors in shaping school performance: A critical literature review*. Chicago, IL: University of Chicago Consortium on Chicago School Research.

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.

- Feshbach, N., & Feshbach, S. (1987). Affective processes and academic achievement. *Child Development, 51*, 1335-1347.
- Finn, K., & Frone, M. (2004). Academic performance and cheating: Moderating role of school identification and self-efficacy. *Journal of Educational Research, 97*(3), 115-122.
- 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*(2), 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.
- Furrer, C., & Skinner, E. (2003). Sense of relatedness as a factor in children's academic engagement and performance. *Journal of Educational Psychology, 95*(1), 148-162.
- Galassi, J., Gullledge, S., & Cox, N. (1997). Middle school advisories: Retrospect and prospect. *Review of Educational Research, 67*(3), 301-338.
- Gardner, W., Roper, J., Gonzalez, C., & Simpson, R. (1988). Analysis of cheating on academic assignments. *The Psychological Record, 38*(4), 543-555.
- Geiser, S., & Santelices, M. (2007). *Validity of high school grades in predicting student success beyond the freshman year: High school record versus standardized tests as indicators of four-year college outcomes*. Research & Occasional Paper Series: CSHE.6.07. Berkeley, CA: Center for Studies in Higher Education.
- Gini, G., Albiero, P., Beneli, B., & Altoe, G. (2007). Does empathy predict adolescents' bullying and defending behavior? *Aggressive Behavior, 33*, 467-476.
- Gladstein, J., Rusonis, E., & Heald, F. (1992). A comparison of inner-city and upper-middle class youths' exposure to violence. *Journal of Adolescent Health, 13*(4), 275-280.
- Goodenow, C., & Grady, K. (1992). The relationship of school belonging and friends' values to academic motivation among urban adolescent students. *Journal of Experimental Education, 62*(1), 60-71.
- Green, K., Forehand, R., Beck, S., & Vosk, B. (1980). An assessment of the relationship among measures of children's social competence and children's academic achievement. *Child Development, 51*, 1149-1156.
- Greenberg, M., Weissberg, R., O'Brien, M., Zins, J., Fredericks, L., Resnick, H., & Elias, M. (2003). Enhancing school-based prevention and youth development through coordinated social, emotional, and academic learning. *American Psychologist, 58*, 466-474.

Gregory, A., Skiba, R., & Noguera, P. (2010). The achievement gap and the discipline gap: Two sides of the same coin. *Educational Researcher*, 39(1), 59-68.

Gregory, A. (1996). The crime of punishment: Racial and gender disparities in the use of corporal punishment in the U.S. public schools. *Journal of Negro Education*, 64, 454-462.

Hanson, T., Austin, G., & Lee-Bayha, J. (2004). *Ensuring that no child is left behind. How are student health risks & resilience related to the academic progress of schools?* San Francisco, CA: WestEd.

Hao, L., & Naiman, D. (2007). Quantile regression. In T. Liao (Series Ed.), *Series: Quantitative applications in the social sciences*. Thousand Oaks, CA: Sage.

Hawes, I. (1924). The attendance department: A laboratory of citizenship. *The School Review*, 32(4), 266-275.

Heckman, J. (2008). Schools, skills and synapses. *Economic Inquiry*, 46(3), 289-324.

Hoffman, J. (2002). The impact of student cocurricular involvement on student success: racial and religious differences. *The Journal of College Student Development*, 43(5), 712-739.

Hoffman, J. & Lowitzki, K. (2005). Predicting college success with high school grades and test scores. Limitations for minority students. *Review of Higher Education* 28(4), 455-474.

Hogan, R., & Weiss, D., (1974). Personality correlates of superior academic achievement. *Journal of Counseling Psychology*, 21(2), 144-149.

Horowitz, K., Weine, S., & Jekel, J. (1995). PTSD symptoms in urban adolescent girls: Compounded community trauma. *Journal of the American Academy of Child & Adolescent Psychiatry*, 34(10), 1353-1361.

Horsch, A. & Davis, R. (1938). Personality traits and conduct of institutionalized delinquents. *Journal of Criminal Law and Criminology* 29(2), 241-244.

Ireland, J. (1999). Pro-victim attitudes and empathy in relation to bullying behavior among prisoners. *Legal and Criminological Psychology*, 4, 51-66.

Jensen, L. A., Arnett, J. J., Feldman, S. S., & Cauffman, E. (2002). It's wrong, but everybody does it: Academic dishonesty among high school and college students. *Contemporary Educational Psychology*, 27(2), 209-228.

Joliffe, D., & Farrington, D. (2006). Examining the relationship between low empathy and bullying. *Aggressive Behavior*, 32, 540-550

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*(4), 497-517.

KewelRamani, A., Gilbertson, L., Fox, M., & Provasnik, S. (2007). *Status and trends in the education of racial and ethnic minorities (NCES 2007-039)*. Washington DC: National Center for Educational Statistics, Institute of Education Sciences, U.S. Department of Education. Retrieved September 1, 2011 from <http://neces.ed.gov/pubs2007>.

Kim, S., & Brody, G. (2005). Longitudinal pathways to psychological adjustment among Black youth living in single-parent households. *Journal of Family Psychology, 19*(2), 305-313.

KIPP (2012). Character and academics. Retrieved on June 1, 2012 from <http://www.kipp.org/character>.

Kurlaender, M., Reardon, S., & Jackson, J. (2008). *Middle school predictors of high school achievement in three California school districts*. California Dropout Research Project. Retrieved from [http://www.cdrp.ucsb.edu/dropouts/pub\\_reports.html](http://www.cdrp.ucsb.edu/dropouts/pub_reports.html).

Krezmien, M., Leone, P., & Achilles, G. (2006). Suspension, race and disability: Analysis of statewide practices and reporting. *Journal of Emotional and Behavioral Disorders, 14*, 217-226.

Leung, K., & Lau, S. (1989). Effects of self-concept and perceived disapproval on delinquent behavior in school children. *Journal of Youth & Adolescence, 18*, 1-23.

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

Losen, D. (2011). *Discipline policies, successful schools and racial justice*. Denver, CO: National Education Policy Center.

Lovecky, D. (1997). Identity development in gifted children: Moral sensitivity. *Roeper Review, 20*, 90-94.

Lovett-Hooper, G., Komaraju, M., Weston, R., & Dollinger, S. (2007). Is plagiarism a forerunner of other deviance? Imagined futures of academically dishonest students. *Ethics & Behavior 17*(3), 323-336.

Lucas, G. & Friedrich, J. (2005). Individual differences in workplace deviance and integrity as predictors of academic dishonesty. *Ethics & Behavior, 15*, 15-35.

- Luthar, S., & Latendresse, S. (2005). Children of the affluent: Challenges to well-being. *Current Directions in Psychological Science*, 14(1), 49-53.
- Malecki, C., & Elliott, S. (2002). Children's social behaviors as predictors of academic achievement: A longitudinal analysis. *School Psychology Quarterly*, 17(1), 1-23.
- McCabe, D. & Trevino, L. (1996). What we know about cheating in college: Longitudinal trends and recent developments. *Change*, 28, 1, 28-33.
- 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: Teachers College Press.
- McRae, R. & Costa, P. (1994). The stability of personality: Observations and evaluations. *Current Directions in Psychological Science*, 3, 173-175.
- Miller, S. (1988). Shortcut: High school grades are a predictor of human capital. *Educational Evaluation and Policy Analysis*, 20, 299-311.
- Moffatt, G., (1993, February). *The validity of the SAT as a predictor of grade point average for nontraditional college students*. Paper presented at the annual meeting of the Eastern Educational Research Association, Clearwater Beach, FL.
- Munro, B. (1981). Dropouts from higher education: Path analysis of a national sample. *American Educational Research Journal*, 18(2), 133-141.
- Mustaine, E. & Tewksbury, R. (2005). Southern college students cheating behaviors: An examination of problem behavior correlates. *Deviant Behavior*, 26, 1-23.
- Neild, R. & Balfanz, R. (2001). An extreme degree of difficulty: The educational demographics of the ninth grade in an urban school system. Paper presented in the annual meeting of the American Sociological Association, Anaheim, CA.
- Newstead, S., Franklyn-Stokes, A., & Armestead, P. (1996). Individual differences in student cheating. *Journal of Educational Psychology*, 96, 4, 765-777.
- Noddings, N. (1988). An ethics of caring and its implications for instructional arrangements. *American Journal of Education*, 96(2), 215-230.
- Noddings, N. (1994). Conversation as moral education. *Journal of Moral Education*, 23(2), 107-118.

- Oswald, P. (2003). Does the interpersonal reactivity index perspective taking scale predict who will volunteer time to counsel adults entering college? *Perceptual and Motor Skills*, 97, 1184-1186.
- 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(6), 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(6), 891-909.
- Parker, J., Creque, R., Barnhart, D., Harris, J., Majeski, S., Wood, L., Bond, B., & Hogan, M. (2004). Academic achievement in high school: Does emotional intelligence matter? *Personality and Individual Differences*, 37(7), 1321-1330.
- Paterson, H., Reniers, B., & Vollm, B. (2009). Personality types and mental health experiences of those who volunteer for help lines. *British Journal of Guidance Counseling*, 37, 459-471.
- Roberts, B. & Del Vecchio, W. (2000). The rank-order consistency of personality traits from childhood to old age: A quantitative review of longitudinal studies. *Psychological Bulletin*, 126, 3-25.
- Roderick, M., Nagaoka, J. & Allensworth, E. (2006). *From high school to the future: A first look at Chicago public school graduates' college enrollment, college preparation, and graduation from four-year colleges*. Chicago, IL: University of Chicago Consortium on Chicago School Research.
- Roeper, A., & Silverman, L. (2009). Giftedness and moral promise. In D. Ambrose & T. Cross (Eds.), *Morality, ethics and gifted minds*. Berlin, Germany: Springer.
- Sams, D. & Truscott, S. (2004). Empathy, exposure to community violence, and use of violence among urban, at-risk adolescents. *Child & Youth Care Forum*, 33(1), 33-50.
- Schonert-Reichl, K. (1993). Empathy and social relationships in adolescents with behavioral disorders. *Behavioral Disorders*, 18, 189-204.
- Schreiber, K. (1992). The adolescent crack dealer: A failure in the development of empathy. *Journal of the American Academy of Psychoanalysis*, 20, 214-249.
- Shaw, S., & Braden, J. (1990). Race and gender bias in administration of corporal punishment. *School Psychology Review*, 19, 378-384.
- Silverman, L., (1993). The gifted individual. In L. Silverman (Ed.), *Counseling the gifted and talented* (pp. 3-29), Denver, CO: Love.

Skiba, R., Michael, R., Nardo, A., & Peterson, R. (2002). The color of discipline: Sources of racial and gender disproportionality in school punishment. *Urban Review, 34*, 317-342.

Sokol, B., Hammond, S., & Berkowitz, M. (2010). The developmental contours of character. In T. Lovat et al (Ed.s), *International research handbook on values education and student wellbeing, part 2*. (pp. 579-603). Berlin, Germany: Springer.

Solomon, D., Battistich, V., Watson, M., Schaps, E., & Lewis, C. (2000). A six-district study of educational change: Direct and mediated effects of the Child Development Project. *Social Psychology of Education, 4*, 3-51.

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

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*(3), 233-254.

Stephens, J. M., Romakin, V. & Yukhymenko, M. (2010). Academic motivation and misconduct in two cultures: A comparative analysis of U.S. and Ukrainian undergraduates. *International Journal of Educational Integrity, 6*(1), 47-60.

Taylor, L., M. Pogrebin, and M. Dodge. 2002. Advanced placement-advanced pressures: Academic dishonesty among elite high school students. *Educational Studies 33*(4): 403-21.

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

Tirri, K. & Nokelainen, P. (2007). Comparison of academically average and gifted students' self-rated ethical sensitivity. *Educational Research and Evaluation, 13*(6), 587-601.

Tittle, C., & Botchkovar, E. (2005). Self-control, criminal motivation and deterrence: An investigation using Russian respondents. *Criminology, 43*(2), 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.

Tough, P. (2011 September 14). What if the secret to success is failure? *New York Times Magazine*, 1-14.

Tross, S., Harper, J., Osher, L., & Kneidinger, L. (2000). Not just the usual cast of characteristics: Using personality to predict college student performance and retention. *Journal of College Student Development, 41*(3), 323-334.

- Unger, L., & Thumhuri, L. (1997). Trait empathy and continuous helping: The case of voluntarism. *Journal of Social Behavior and Personality*, 12, 785-800.
- 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. (1988). Naturalistic conceptions of moral maturity. *Developmental Psychology*, 34(3), 403-419.
- Wallace, J., Goodkind, S., Wallace, C., & Bachman, J. (2008). Racial, ethnic and gender differences in school discipline among U.S. high school students: 1991-2005. *Negro Educational Review*, 59, 47-62.
- Wangaard, D., & Stephens, J. (2011). *Creating a culture of academic integrity*. Minneapolis, MN: Search Institute.
- Wentzel, K. (1993). Does being good make the grade? Social behavior and academic competence in middle school. *Journal of Educational Psychology*, 85(2), 357-364.
- Wentzel, K. & Asher, S. (1995). The academic lives of neglected, rejected, popular and controversial children. *Child Development*, 66(3), 754-763.
- Who's Who among American High School Students. 1998. Cheating and succeeding: Record numbers of top high school students take ethical shortcut: 29th Annual Survey of High Achievers. <http://www.eci-whoswho.com/highschool/annualsurveys/29.shtml> (accessed 30 March 2012).
- Wilhelm, M. & Bekkers, R. (2010). Helping behavior, dispositional empathic concern, and the principle of care. *Social Psychology Quarterly*, 73, 11-32.
- Willingham, W. (1985). *Success in college: The role of personal qualities and academic ability*, New York: College Entrance Examination Board.
- Winner, E. (1997). *Gifted children: Myths and realities*. New York: Perseus.
- Wires, J., Barocas, R., & Hollenbeck, A. (1994). Determinants of adolescent identity development: A cross-sequential study of boarding school boys. *Adolescence* 29, 361-378.
- Wolfe, R., & Johnson, S. (1995). Personality as a predictor of college performance. *Educational and Psychological Measurement*, 55, 177-185.

Wong, C., Day, J., Maxwell, S., & Meara, N. (1995). A multitrait-multimethod study of academic and social intelligence in college students. *Journal of Educational Psychology*, 87, 117–133.

Zau, A. & Betts, J. (2008). *Predicting success, preventing failure: An investigation of the California High School Exit Exam*. Report of the Public Policy Institute of California.

Zheng, J., Saunders, K., Shelley, M., & Whalen, D. (2002). Predictors of academic success for freshmen residence hall students. *Journal of College Student Development*, 43(2), 267-283.

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

Table 1

Summary statistics for Classical Academy, Collegiate Bound and Civitas Prep middle school students by gender, grade and race/ethnicity (n = 488)

	N	<u>Gender</u>		<u>Grade</u>			<u>Race/Ethnicity</u>			
		Female	Male	Sixth	Seventh	Eighth	Black	Latino	White	Multi-racial
Classical Academy	148	51% (76)	49% (72)	24% (35)	42% (62)	34% (51)	63% (94)	23% (34)	2% (3)	12% (17)
Collegiate Bound	175	57% (99)	43% (76)	33% (58)	31% (55)	36% (62)	49% (86)	40% (70)	0% (0)	11% (19)
Civitas Prep	172	57% (98)	43% (74)	33% (56)	34% (59)	33% (57)	58% (99)	13% (23)	19% (33)	10% (17)

Table 2

Summary statistics (mean, standard deviation) for Classical Academy, Collegiate Bound and Civitas Prep middle school students integrity, perseverance, grade point average and demerits (n = 488)

	N	<u>Key Character Strengths</u>		<u>Key Outcome Variables</u>	
		Time 2 Integrity	Time 2 Persevere	GPA	Demerits
Classical Acad.	148	4.49 (.69)	3.58 (.91)	79.9 (7.93)	161.9 (196.2)
Collegiate Bound	175	4.39 (.72)	3.77 (.80)	78.1 (10.3)	199.6 (230.1)
Civitas Prep	172	4.35 (.79)	3.72 (.83)	79.5 (8.66)	43.46 (41.58)

Table 3.

Spearman rank correlations for student achievement, student conduct and character strengths (n = 488).

	GPA	Demerits	Persevere	Courage	Integrity	Empathy	Social Resp.
GPA	1.0000						
Demerits	-0.4010	1.0000					
Persevere	0.3909	-0.3244	1.0000				
Courage	0.1660	-0.0895	0.4277	1.0000			
Integrity	0.1386	-0.2553	0.4462	0.2586	1.0000		
Empathy	0.2725	-0.2118	0.4399	0.5776	0.1987	1.0000	
Social Resp.	0.2292	-0.1977	0.5089	0.5903	0.3061	0.6896	1.0000

Table 4.

Quantile regression models for the relationship between students' grade point average, demerits and tested character strengths (n = 488)

	<u>GPA</u>				<u>Demerits</u>			
	<i>B</i>	<i>SE</i>	<i>t</i>	<i>p</i>	<i>B</i>	<i>SE</i>	<i>t</i>	<i>p</i>
Intercept	66.65	5.81	11.65	<.001	354.52	164.96	2.15	.03
Classical	1.40	2.60	0.54	.22	30.42	24.26	1.25	<.001
Civitas	2.55	1.57	1.62		73.78	15.43	4.78	
6th grade	4.04	1.29	3.11	.001	7.33	11.48	0.64	.03
7th grade	3.31	1.04	3.17		29.27	11.22	2.61	
Gender	-1.38	0.93	-1.48	.14	22.54	9.44	2.39	.02
Af-Am	-0.11	0.87	-0.12	.90	17.91	9.22	1.94	.05
GPA	--	--	--	--	-2.66	.75	-3.56	<.001
Demerits	-0.02	.004	-5.40	<.001	--	--	--	--
Merits	.006	.007	.92	.36	.06	.077	.83	.41
SchoolConnect	4.55	3.02	1.51	.03	-7.65	5.99	-1.28	.20
SchoolConnect <sup>2</sup>	-0.79	0.42	-1.86		--	--	--	--
<b>Performance Character</b>								
Persevere	3.43	0.64	5.36	<.001	-34.6	52.23	-.66	.32
Persevere <sup>2</sup>	--	--	--	--	3.33	7.10	0.47	
Courage	-.74	.79	-.94	.35	7.24	7.16	1.01	.31
<b>Moral Character</b>								
Integrity	-1.46	0.73	-2.01	.04	70.61	57.69	1.22	.08
Integrity <sup>2</sup>	--	--	--	--	-10.68	7.38	-1.45	
Empathy	1.09	0.73	1.48	.14	2.06	7.61	0.27	.79
Social Resp.	-.004	0.73	-0.05	.96	-76.96	55.52	-1.39	.28
Social Resp. <sup>2</sup>	--	--	--	--	9.17	7.37	1.25	
Pseudo R <sup>2</sup>	.19				.17			

*Note: All nonlinear terms were tested jointly with linear counterparts. Schools and grade level were also tested jointly. Joint p-values are reported where applicable.*