

1-1-2016

# The Role Of Individual Character Strengths In Adolescent Academic Achievement And Risky School Behavior

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**THE ROLE OF INDIVIDUAL CHARACTER STRENGTHS IN ADOLESCENT  
ACADEMIC ACHIEVEMENT AND RISKY SCHOOL BEHAVIORS**

by

**PAUL DESCHAMPS**

DISSERTATION PROPOSAL

Submitted to the Graduate School

of Wayne State University,

Detroit, Michigan

in partial fulfillment of the requirements

for the degree of

**DOCTOR OF PHILOSOPHY**

2016

MAJOR: EDUCATIONAL PSYCHOLOGY

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## DEDICATION

This dissertation is dedicated to my family who have supported me at every step along the way. First to my wife, my custom made model, for making the time in our lives for me to step away and work on my dissertation. For being a single mother when I was working full time, taking doctoral level classes, and serving on the board of M.A.S.P. For giving up so many date nights and summer afternoons. For marrying me, and blessing our family with 3 girls, 2 of which were born during the writing of the dissertation. For keeping me grounded and focused on what is truly important and what I am truly called to do in leading our family. This is dedicated to you.

To my parents, who nurtured my curiosity and learning from the earliest days. Working hard to make sure I had the best possible educational opportunities and experiences, including my bachelor's degree. Then supporting my business pursuits in entertainment and production. Being a safe and soft place to land in between exploring the world and myself. Finally, helping me explore career and college options until finding Wayne State's school psychology program, and then the doctoral program. Your support and encouragement were essential in me setting such high aspirations and following through to achieve them. Additionally, I dedicate this work to my late father, who provided significant support, watching Willow during the summer the proposal came together and who always beamed with pride with or without "Dr. D." I know you were called home before I finished, but it would not have been possible without you.

To my girls, Shilee, Willow, and Charlotte, you are all true blessings that bring so much joy into my life. You have been a constant source of motivation for me to work harder, be better, and not give up so I can be a good example for you in your endeavors. Know the importance of your education, take ownership of it, and know that you are each capable of achieving great things during your lives, but remember to keep God first, and let him lead.

## ACKNOWLEDGEMENTS

My dissertation process has been long and complicated. I'd like to thank each of my committee members for your patience and support. I'd specifically like to thank Dr. Somers for helping provide structure and stimulate exploration as this topic came together. I'd like to thank Dr. Hillman for his participation and feedback as well as introducing me to the field of positive psychology during a doctoral seminar. I'd like to thank Dr. Yoon for her participation in my examinations and feedback during the proposal process, specifically encouraging me to explore outside the traditional boundaries of educational psychology. I'd like to thank Dr. Pernice-Duca for being willing to serve on my committee for the defense, after Dr. Yoon took a position at another university. I'd like to thank Dr. Partridge for expanding my definition of development and exposing me further to strength-based research, specifically Lerner's 4H study. I'd like to thank Fred at the RDA for helping revive my knowledge of statistics and their application.

I'd like to acknowledge administrators in Garden City and Northville for entertaining the idea of research being conducted in their schools. I'd especially like to thank the psychology and statistic teachers for embracing study participation as a learning opportunity for their students and being willing to help a colleague.

I'm grateful to all of my other instructors in my education and my classmates who took this journey with me. I'd also like to acknowledge my colleagues who provided encouragement, specifically Mary McKinney and Krisann Arbanas who were my school psychology internship supervisors in Garden City.

I'd also like to acknowledge my former business partner and life-long friend, who every day for 10 years challenged me to think outside of the box, solve problems I didn't know existed,

and find great passion in our work. These skills translated to graduate school and my marriage and greatly contributed to my success.

I would be remiss if I did not acknowledge the almighty God, creator of heaven and earth, who gives the air in my lungs each and every day. I'm specifically reminded of one of my dad's favorite verses, Proverbs 3:5-6 "Trust in the Lord with all your heart, and lean not on your own understanding; in all your ways acknowledge Him, and He shall direct your paths."

## TABLE OF CONTENTS

Dedication.....	ii
Acknowledgements.....	iii
List of Tables.....	vii
Chapter 1 – Introduction .....	1
The Intrapersonal Context .....	1
The Family Context .....	4
The Peer Context .....	5
The School Context .....	6
Potential Mediators and Moderators .....	9
Limitations of Past Research/Purpose of Current Study .....	10
Research Questions .....	10
Hypotheses .....	11
Significance of Study .....	12
Chapter 2 – Review of Literature .....	13
Academic Achievement .....	13
Risky School Behavior .....	15
Multiple Context Perspective .....	18
Character Strengths .....	20
Adolescent Achievement Orientation .....	24
Parental Achievement Orientation .....	25
Parental Involvement .....	28
Peer Achievement Orientation .....	30
Teacher Social Support .....	32
School Attachment .....	35

Summary .....	36
Chapter 3 – Methodology .....	39
Participants .....	39
Measures .....	42
Procedure .....	50
Statistical Analysis .....	51
Chapter 4 – Results.....	54
Preliminary Analyses.....	54
Research Questions.....	55
A Posteriori Analysis of Individual Character Strengths.....	69
Chapter 5 – Discussion.....	74
Limitations and Directions for Future Research.....	78
Summary and Conclusions.....	79
Appendix A – Tables.....	81
Appendix B – HIC Status.....	83
Appendix C – Instrument.....	84
Appendix D – Information Sheet.....	95
Appendix E – Adolescent Assent.....	97
References .....	100
Abstract.....	122
Autobiographical Statement.....	124



## LIST OF TABLES

Table 1	Demographic Characteristics.....	40
Table 2	Demographic Characteristics by Sample.....	56
Table 3	Pearson Correlations of Character Strengths with Academic Achievement	58
Table 4	Pearson Correlations of Character Strengths with Risky School Behaviors	60
Table 5	Character Strength Index Summary.....	61
Table 6	Character Strength Predicting Academic Achievement Beyond Other Intra-personal Variables.....	62
Table 7	Character Strength Predicting Risky School Behavior Beyond Other Intra-personal Variable.....	64
Table 8	Character Strength Predicting Academic Achievement Beyond Contextual Variables.....	65
Table 9	Character Strength Predicting Risky School Behavior Beyond Contextual Variables.....	67
Table 10	Character Strengths Significant for Mediation of Parent Influence.....	68
Table 11	Individual Character Strengths Predicting Academic Achievement.....	70
Table 12	Individual Character Strength Predicting Risky School Behavior.....	72
Table 13	Individual Character Strengths Significant for Mediation of Parent Influence.....	73

## CHAPTER 1 INTRODUCTION

Academic Achievement is a major developmental task in adolescence (Steinberg, 2011). Reducing school-related behaviors that reflect risk-taking that are correlated with less academic success such as tardiness to class, unexcused absences, office referrals, and suspensions (Risky School Behaviors; Somers & Gizzi, 2001; Achilles, McLaughlin, & Croning, 2007) are an important part of the process. It is important to examine influences in multiple life contexts that impact development, as factors contributing to these outcome variables do not operate in isolation, but are influenced by and have influence within other systems. According to the ecological theory of development, we must focus not only on the developing individual, but also on the interrelations between the individual and their contexts, and on the interconnections among the contexts themselves (Bronfenbrenner, 1979, 1986). Researchers now understand that patterns of adolescent achievement and general development are the result of a cumulative process that includes a long history of experience and socialization in school, in the family, in the peer group, and in the community (Steinberg, 2011). A sample of variables, arising from the literature, from individual, family, peer, and school contexts were included in the current study in order to best measure potential associations of individual Character Strengths with adolescents' Academic Achievement and Risky School Behaviors that may interfere with it.

### **The Intrapersonal Context**

Although multiple contexts external to the individual (e.g., family, peers, and schools) play an important role in adolescent development (Steinberg, 2011), the individual is not a passive recipient of experiences in these settings, but someone who helps to construct the settings (Santrock, 2008). The interaction between individual and context can have reciprocal influences and is itself set within the passage of time, constantly changing. Factors within the person such as

beliefs, attributions, and ultimately achievement orientation are important in predicting outcomes in Academic Achievement. Character Strengths are other important factors that occur within the individual that have many important correlates of outcomes including Academic Achievement.

**Character Strengths.** Character refers to those aspects of personality that are morally valued and good character is at the core of positive youth development (Park & Peterson, 2009a). Indeed, the 4-H study of Positive Youth Development incorporates character as a key indicator of positive outcomes for youth and acknowledges that every adolescent has strengths (Lerner, 2002). For centuries, building and strengthening good character among children and youth have been universal goals for parenting and education (Park & Peterson, 2009b). Peterson and Seligman (2004) compiled a collection of 24 universal Character Strengths organized under six broader virtues (see Appendix A). Character Strengths are measured by 24 separate indexes for individual Character Strengths using the VIA Inventory of Strengths (commonly known as the VIA Survey) which was developed, validated, and utilized in research for adults (Peterson, Park, & Seligman, 2004) and adolescents (Park & Peterson, 2005).

Character Strengths are related to Academic Achievement, in children and youth (Park & Peterson, 2008a). Analysis of all 24 Character Strengths reveals that nine specific Character Strengths (Persistence, Judgment, Love of Learning, Self-regulation, Prudence, Fairness, Hope, Perspective/Wisdom, and Curiosity) have higher magnitude correlations with Academic Achievement in college students (Lounsbury, Fisher, Levy, & Welsh, 2009) and four specific characters strengths (Persistence, Love, Gratitude and Hope) have been found to predict Academic Achievement in middle school students (Park & Peterson, 2009b). After controlling for student IQ scores with middle school students, six specific characters strengths (Persistence, Fairness, Gratitude, Honesty, Hope, and Perspective) predicted end-of-year grade point average (Park &

Peterson, 2007). These findings are consistent with previous research showing that prosocial behaviors predict Academic Achievement above-and-beyond intellectual ability per se (Caprara, Barbaranelli, Pastorelli, Bandura, & Zimbardo, 2000; Wentzel & Caldwell, 1997). There are not specific studies linking Character Strengths to Risky School Behaviors, but Ma, Kebler, Dollar, Sly, Samuels, Benford, Coleman, Lott, Patterson, and Wiley (2008) found that one specific Character Strength (Love of Learning) was associated with abstinence from drug use in boys and girls and abstinence from sexual intercourse for adolescent boys.

**Adolescent achievement orientation.** Contemporary theories tend to stress the interaction of motives, beliefs, attributions and goals as influencing Adolescents' Achievement Orientation (Steinberg, 2011). Adolescents who believe that ability is malleable, who are motivated by intrinsic rather than extrinsic rewards, who are confident about their abilities, and who attribute their successes and failures to effort rather than to things they can't control, achieve more in school than their peers (Steinberg, 2011). Need for achievement is an intrinsically motivated desire to perform well (McClelland, Atkinson, Clark, Lowell, & 1953). Motivation becomes a more and more important determinant of success during adolescence, as individuals increasingly are expected to take charge of their own educational careers and, by the time one enters college, doing well is influenced as much by conscientiousness as it is by intelligence (Poropat, 2009). Adolescents with a strong need for achievement come from families in which parents have set high performance standards, have rewarded achievement success during childhood, and have encouraged autonomy and independence (Rosen & D'Andrade, 1959). Research does not appear to have been conducted yet on associations between Adolescent Achievement Orientation and various Risky School Behaviors that may interfere with achievement.

## **The Family Context**

Adolescents perform better in school and are more engaged in school when they come from homes in which their parents practice authoritative parenting, value and expect scholastic success and are involved in their child's schooling (Steinberg, 2011). Specifically, parenting behaviors associated with children's Academic Achievement include authoritative parenting styles (Epstein & Dauber, 1991), book reading (Stevenson & Baker, 1987) helping with homework (Trusty, 1996) and school involvement (Wilson & Wilson, 1992). While forty years of research has effectively reached a consensus about the importance and benefits of authoritative parenting (Baumrind, 1971) including its impact on Academic Achievement in adolescents (Aunola, Stattin, & Nurmi, 2000; Paulson, Marchant, & Rothlisberg, 1998) and myriad other outcomes such as being more responsible, self-assured, creative, intellectually curious, socially skilled, and academically successful (Steinberg, 2011), this study will examine parenting style in the context of other parenting variables such as Parental Achievement Orientation and Parental Involvement.

**Parent achievement orientation.** Eccles' expectancy-value model emphasizes parents as role models, sources of reinforcement, and providers of information, resources, and opportunities for their children (Eccles et al., 1992). Parental messages, both subtle and overt, influence adolescents' own beliefs about themselves and the value of educational choices (Eccles, Wigfield, & Schiefele, 1998). Parents' expectations for their children's eventual educational attainment have been related to children's own educational expectations and self-concepts, as well as to their actual academic performance (Halle, Kurtz-Costes, & Mahoney, 1997; Phillips, 1987). Adolescents' achievement is directly related to the parents' values and expectations (Jodl, Michael, Malanchuk, Eccles, & Sameroff, 2001) and adolescents who have had warm and close relationships with their parents are more likely to have similar attitudes and values (Brody, Moore, & Gleib, 1994). Thus,

this literature can be interpreted to be demonstrating that parents who encourage school success set higher standards for school performance and homework, structure the home environment to support academic pursuits, and are more likely to be involved in the child's education.

**Parent involvement.** Attending school programs, helping in course selection, and maintaining interest in school activities and assignments, contribute to school success (Benner, Graham, & Mistry, 2008) and predict Academic Achievement (Paulson, 1994a). Parents' Involvement with their children has been shown to impact achievement motivation and behavior in a number of studies (Epstein & Dauber, 1991; Eccles et al., 1998; Kashani, Canfield, Borduin, Soltys, & Reid, 1994; Scanlan & Lewthwaite, 1986; Stevenson & Baker, 1987). As far as factors within the family context that predict Risky School Behavior (RSB), mother's marital status, maternal depression, marijuana use and criminal history predict the RSB of student's suspension from school (Smith-McKeever & Gao, 2010). Other research has connected Parent Involvement with problem behavior; however, studies have not specifically examined relations with Parent Involvement and RSB. Low family support has been associated with behavior problems in children (Sandler, 1980) and adolescents (Kashani & Shepperd, 1990), Zelkowitz (1987) demonstrated that nurturance from parents and other adults was negatively correlated with aggressive behavior, Hill et al. (2004) found that parent academic involvement in the 7<sup>th</sup> grade was negatively related to 8<sup>th</sup> grade behavioral problems, and Robl, Jewell, and Kanotra (2012) found a relationship between Parental Involvement and problematic social behaviors in school age children.

### **The Peer Context**

While parents clearly play a large role in their children's Academic Achievement, some studies suggest that peers have the most salient influences on adolescents' day-to-day school

behaviors such as doing homework and exerting effort in class (Kurdek Fine, & Sinclair, 1995; Midgley & Urdan, 1995; Steinberg, 1996). Specifically, adolescents and those who they choose as their friends tend to be similar in their attitudes towards school, in their school achievement, and in their educational plans (Wentzel & Caldwell, 1997). An adolescent's peer's school performance can impact his/her own school performance for better or worse; having friends who earn high grades and aspire to further education can enhance adolescents' achievement, whereas having friends who earn low grades or disparage school success may interfere with it (Steinberg, 1996). Students with best friends who achieve high grades in school are more likely to show improvements in their own grades than students who begin at similar levels of achievement but whose friends are not high achievers (Mounts & Steinberg, 1995).

Students whose friends are more engaged in school are themselves more engaged and less likely to drop out (Ream & Rumberger, 2008). Students' motivation to behave in socially competent ways also have been related to peer expectations for prosocial forms of behavior (Wentzel, Filisetti, & Looney, 2007). Similarly, adolescents whose friends are disruptive in school tend to become more disruptive over time (Berndt & Keefe, 1995). Additionally, antisocial, aggressive adolescents whom are frequently suspended from school gravitate towards each other, forming deviant peer groups (Cairns, Cairns, Neckerman, Gest, & Garipey, 1988; Dishion, Patterson, Stoolmiller, & Skinner 1991; Espelage, Holt, & Henkel, 2003). Thus the relation between the peer context and the Risky School Behavior of suspension.

### **The School Context**

In addition to family and peer contexts, aspects of the teacher- and school-adolescent relationship contribute to Academic Achievement. Coleman (1988) noted the special significance of social capital for children. As children mature, the focus of their social development shifts from

parents to include peers, other adults, and schools; thus social relationships that are developed in school become increasingly important as children move into adolescence (Lee & Burkam, 2003). When teachers are supportive but firm and maintain high, well-defined standards for behavior and academic work, students have stronger bonds to their school and more positive achievement motives; these beliefs and emotions in turn, lead to fewer problems, better attendance, lower rates of delinquency, more supportive friendships, and higher scores on tests of achievement (Eccles, 2004; Loukas, Suzuki, & Horton, 2006; Ryan & Patrick, 2001; Way & Pahl, 2001). Specifically, two factors that will be explored are Teacher Social Support and School Attachment.

**Teacher social support.** Research in the area of social support has demonstrated that the support that children and adolescents perceive plays an undeniable role in their outcomes including academics (Demaray & Malecki, 2002; Levitt, Guacci-Franco, & Levitt, 1994; Richman, Rosenfeld, & Bowen, 1998), self-concept (Cauce, Felner, & Primavera, 1982; Demaray & Elliott, 2001; Forman, 1988; Klooma & Cosden, 1994; Rothman & Cosden, 1995, Wenz-Gross & Siperstein, 1998), social skills (Demaray & Elliott, 2001; Demaray & Malecki, 2002; Malecki & Elliott, 1999), and drug use and delinquency (Bender & Losel, 1997; Frauenglass, Routh, Pantin, & Mason, 1997; Garnefski & Diekstra, 1996; Lifrak, McKay, Rostain, Alterman, & O'Brien, 1997; Licitra-Kleckler & Wass, 1993; Piko, 2000). Adolescents' perceptions that teachers care about and like them as individuals have been related to positive motivational outcomes including the pursuit of goals to learn and to behave prosocially and responsibly, educational aspirations and values, and positive self-concept (Goodenow, 1993; Harter, 1996; Midgley, Feldlaufer, & Eccles, 1989; Wentzel, 1997; Wentzel & Wigfield, 1998). Students who believe that teachers supported their efforts to succeed in school improved achievement (Croninger & Lee, 2001).



Qualitative studies have also shown that positive social relationships can create powerful incentives for students to come to school (RSB-absence), even students who report that school work is difficult and expectations are hard to meet (Fine, 1991; Lee, Smerdon, Alfeld-Liro, & Brown, 2000). Students who leave high school before graduating often cite lack of social support as one reason for doing so. Students who are disaffected with school report being unconnected with teachers, even after having made efforts to gain assistance for school personnel (Croninger & Lee, 2001). Garnefski & Diekstra (1996) found that for high school students age 16-18, there was a strong relation between problem behavior and an adolescent's negative perception of social support from school. The study does not measure problem behavior in terms of RSB; however, an association could be implied that problem behavior at school often leads to office discipline referrals and suspensions (RSBs).

**School attachment.** For the purposes of the present study, School Attachment is defined as student's overall connectedness to school (Somers & Gizzi, 2001). Research has demonstrated that feelings of attachment to school are related to levels of school engagement including persistent effort in schoolwork, increased academic motivation, expectations for success, valuing schoolwork, and general school motivation and interest (Voelkl, 1996). Risky School Behaviors have been found to be lower when adolescents were more involved in and attached to school (Somers & Gizzi, 2001). It is likely those students who are more connected to the school may be less likely to engage in risky behaviors (Resnick et al., 1997). Finn and Cox (1992) found that student identification with school was positively related to attendance, preparedness for class, disciplined behavior, and attentiveness in class. Truancy, absenteeism, and the eventual withdrawal from school have been found to be associated with lack of belonging to school and not valuing school (Voelkl, 1996; Newmann, Rutter, & Smith, 1989). Isolation in conjunction with

problematic peer encounters at school was found to significantly increase delinquency and delinquent peer associations (Kreager, 2004).

### **Potential Mediators and Moderators**

Given the established relationship between Character Strengths and academic outcomes, it was important to identify the role of Character Strengths in the adolescent population. Given some variation in Character Strengths by gender at other developmental ages (Toner, Haslam, Robinson, & Williams, 2012; Park & Peterson, 2006b) it was also reasonable to believe that there may be a moderator effect of gender that would affect the direction or strength of the relationship between specific Character Strengths and school success. Gender may influence the endorsement of certain strengths over others, with girls tending to score higher than boys on some strengths (Appreciation of Beauty, Kindness, Love, Fairness, Gratitude, Perspective, and Spirituality (Park 2004; Linley et al., 2007). Indeed, measures of normal personality, such as the Big Five traits, reveal that women typically score higher than men on Agreeableness, Conscientiousness and Neuroticism (McCrae, 2002) yet little research has focused upon youth.

The development of an individual's character is influenced by genetics, family, peers, and teachers; character is created and/or revealed by challenge; character can be taught (Park & Peterson, 2012). Family influences impact Academic Achievement by encouraging autonomy, instilling a sense of curiosity and learning for intrinsic rewards, and providing a stable environment (Park & Peterson, 2008b). Given this known relation between the character of the individual and the surrounding systems, it is reasonable to believe that character may actually function as a partial mediator for parenting influences in predicting Academic Achievement. In other words, the link between parenting and Academic Achievement may actually partially occur *through* Character

Strengths. This was explored in the current study. The dynamics with Risky School Behaviors as criterion variables is even less well explored.

### **Limitations of Past Research and Purpose of Current Study**

This study is the first to expand understanding of these key interrelated but unique outcome variables of both Academic Achievement and Risky School Behavior through examination of individual Character Strengths in the presence of other key intrapersonal and contextual variables from multiple systems in a child's life including intrapersonal/individual and microsystem (family, peer, school) factors. Given the literature reviewed and perceived limitations of Character Strength research, the following research questions and subsequent hypotheses are posed:

1) What is the relation between individual Character Strengths and key outcomes (Academic Achievement, Risky School Behavior)? Which individual Character Strengths most strongly correlate with Academic Achievement? Which ones strongly correlate with RSB?

\*\* Once individual Character Strengths are identified as having relatively higher magnitude of correlation with an outcome measure, these Character Strengths will be combined to form two separate indexes called Academic Achievement Character Strengths (AACS) and Risky School Behavior Character Strengths (RSBCS). These indexes will be used in the remaining research questions.

2) Do the Character Strength indexes (AACS) and (RSBCS) explain more of the variance in their corresponding outcome measure above and beyond the other intra-personal variable of Adolescent Achievement Orientation?

3) Incorporating the contextual variables of Parental Involvement, Parental Achievement Orientation, Peer Achievement Orientation, Teacher Social Support, and School

Attachment, as well as the intra-personal variable of Adolescent Achievement Orientation, do the Character Strength indexes (AACS) and (RSBCS) explain more of the variance in their corresponding outcome measure above and beyond the contributions of the other variables?

4) Do the Character Strength indexes (AACS) and (RSBCS) partially mediate the relations between the combined parenting measures (Parental Involvement and Parental Achievement Orientation) and the corresponding outcome measures?

5) Does gender moderate the relations between the individual Character Strength indexes (AACS) and (RSBCS) and their respective outcome measures?

It was expected that all of the individual Character Strengths would be positively correlated related with Academic Achievement; however, nine individual Character Strengths (Persistence, Judgment, Love of Learning, Self-regulation, Prudence, Fairness, Hope, Perspective/Wisdom, and Curiosity) were hypothesized to have a relatively higher magnitude of correlation with Academic Achievement. Having minimal previous literature relating Character Strengths and RSB, analysis regarding which individual Character Strengths will have a relatively higher magnitude of correlation with low Risky School Behavior is somewhat exploratory with the exception of Love of Learning; however, based on the constructs they represent, it was reasonable to expect that Character Strengths relating to controlling oneself and impulses (Self-regulation), making objective decisions (Judgment), caring about others (Love), using discretion (Prudence), and giving others direction (Leadership) would have a relatively higher magnitude correlation with low RSB. When considered together, AACS and RSBCS were expected to explain more of the variance in their relative outcome measures than Adolescent Achievement Orientation. When all variables are considered (Adolescent Achievement Orientation, Parental Achievement

Orientation, Parental Involvement, Peer Achievement Orientation, Teacher Social Support, School Attachment), AACS and RSBCS were expected to explain a specific portion of the variance in their respective outcome measures. Given that Character Strengths are developed in households with warm and responsive parents that encourage the development of autonomy (Park & Peterson, 2012), it was hypothesized that a select composite of individual Character Strengths AACS and RSBCS would act as a partial mediator for the combination of parental variables (Parental Achievement Orientation, Parental Involvement) in predicting Academic Achievement and Risky School Behavior, respectively. Also, gender would have a moderating effect on the relation between AACS and RSBCS and their respective outcomes.

The results of this study were expected to contribute to a better understanding of the function of Character Strengths in adolescents and understanding their relations to other important outcomes in high school success including Academic Achievement and Risky School Behavior. This information can be used by administrators, teachers, counselors, social workers, and psychologists to inform school-wide character education programs as well as individual character building interventions with the goal of increasing student Academic Achievement and decreasing Risky School Behaviors.

## CHAPTER 2 LITERATURE REVIEW

### Overview

Academic Achievement is a major developmental task in adolescence (Steinberg, 2011). Reducing Risky School Behaviors such as unexcused absences, office referrals, and suspensions that are correlated with less academic success and other outcomes (Somers & Gizzi, 2001; Achilles et al., 2007) is a critical part of the process. When looking at influences on adolescent Academic Achievement and Risky School Behaviors, it is important to examine influences in multiple life contexts that impact development, as factors contributing to these outcome variables do not operate in isolation, but are influenced by and have influence within other systems (Bronfenbrenner, 1979, 1986). Patterns of adolescent achievement and general development are the result of a cumulative process that includes a long history of experience and socialization in school, in the family, in the peer group, and in the community (Steinberg, 2011). Based on both research and theory, a carefully selected set of variables from family, peer, school and individual contexts was included in the current study in order to best measure potential associations with adolescents' Academic Achievement and Risky School Behaviors that may interfere with it.

### Academic Achievement

Academic Achievement is a major developmental task in adolescence (Steinberg, 2011) and patterns of adolescent achievement and general development are the result of a cumulative process that includes a long history of experience and socialization in school, in the family, in the peer group, and in the community (Steinberg, 2011). Academic Achievement in adolescents can be measured in a variety of ways such as local and state standardized testing (NWEA, MEAP, ACT) or individualized achievement testing (WRAT, WJ), but the most frequently cited indicator is grade point average (g.p.a.). High school G.P.A. is a strong predictor of college adjustment

(Dennis et al, 2005). Achievement is an important issue during adolescence because society typically designates adolescence as a time for preparation for adult work roles, because individuals now can understand the long-term implications of their educational and career decisions, and because during adolescence schools begin making distinctions among individuals that potentially have profound effects on their long-term occupational development (Steinberg, 2011). Educational attainment is a powerful predictor of adult occupational success and earnings (Manlove, 1998; Rumberger, 1995). Today two thirds of high school graduates enroll in college immediately after graduation (National Center for Education Statistics, 2009). The number of years of schooling an individual completes is the single best indicator of his or her eventual occupational success (Arum & Hout, 1998). Research shows that each year of education – even without graduation – adds significantly to occupational success.

Contemporary theories of adolescent Academic Achievement stress the interaction of intra-individual factors such as motives, beliefs, attributions, and goals as well as factors within the home, school, and peer groups as influencing adolescent's achievement orientations (Steinberg, 2011). Adolescents who believe that ability is malleable, who are motivated by intrinsic rather than extrinsic rewards, who are confident about their abilities, and attribute their success and failures to effort rather than to things they can't control, achieve more in school than their peers. Students who rate themselves high on the Character Strengths of persistence, love, gratitude and hope achieve higher grades in school than individual's who endorse other Character Strengths as primary (Park & Peterson, 2009b). Abilities, beliefs and motivations may play a large role in influencing individual performance, but opportunities and situational factors also have a great deal to do with achievement (Eccles & Roeser, 2009). Evidence suggests that important aspects of the home environment (parents' values and expectations, authoritative parenting, cultural capital) are

better predictors of adolescent's Academic Achievement than are factors of the school environment (Coleman et al., 1966; Steinberg, 1996). There is also evidence that friends influence adolescent's achievement; having friends who earn high grades and aspire to further education can enhance adolescent's achievement (Steinberg & Cauffman, 1996). Taken as a whole, there is a wide body of research suggesting numerous factors contributing to adolescent achievement; however, thus far, no single study has incorporated all of these specific factors, from these multiple developmental contexts.

### **Risky School Behavior**

Risky School Behavior, defined as school-related behaviors that reflect risk-taking at school, including tardiness to class, unexcused absences, office discipline referrals, and suspensions, are correlated with less academic success and other negative outcomes (Somers & Gizzi, 2001; Achilles et al., 2007). The term Risky School Behaviors (RSB) coined by Somers and Gizzi (2001) can represent the effects of many risk-taking behaviors; however, RSB specifically addresses the impact of other risk-taking, deviant, or maladaptive behaviors such as risky sexual behaviors, violence, drug use, on the behavior in the school setting that can negatively impact school performance and school completion. For example, RSB is highly correlated to risky sexual behaviors such as age of first sexual intercourse, number of sexual intercourse partners, use of condoms or other birth control, and peer's acceptance of teen pregnancy (Somers & Gizzi, 2001).

The National Center for Education Statistics (2000) reported that 11.8% of adolescents drop out of school before completing high school, adolescents have the highest rate of arrest of any group, and increasing number of students are regularly consuming drugs and alcohol; all of these activities threaten development. Risky behaviors threaten teens' health and well-being;



therefore, it is important to study those factors that predict risky behaviors (Somers & Gizzi, 2001). Because RSB is a relatively new construct label, there are very few studies that specifically cite RSB as a variable, but numerous studies on behavior leading to school absenteeism, and school suspensions. For example, truancy, absenteeism, and the eventual withdrawal from school have been found to be associated with lack of belonging to school and not valuing school and at-risk students also demonstrated behaviors including poor attendance, a low value toward schoolwork, and lack of participation, effort, motivation, and expectation for success (Voelkl, 1996). Likewise, there is sufficient literature on negative outcomes associated with school absenteeism, behavior problems, school suspensions (Steinberg, 2011).

Factors that influence adolescent behavior occur in multiple settings including the home, school, and peer groups. Regarding the RSB of absence, Finn and Cox (1992) found that student identification with school was positively related to attendance, preparedness for class, disciplined behavior, and attentiveness in class. A lack of “belonging” to school and not valuing school have been found to be associated with truancy, absenteeism, and the eventual withdrawal from school (Voelkl, 1996; Newmann et al., 1989). When teachers are supportive but firm and maintain high, well-defined standards for behavior and academic work, students have stronger bonds to their school and more positive achievement motives; these beliefs and emotions in turn, lead to fewer problems, better attendance, lower rates of delinquency, more supportive friendships, and higher scores on tests of achievement (Eccles, 2004; Loukas et al., 2006; Ryan & Patrick, 2001; Way & Pahl, 2001). Qualitative studies have also shown that positive social relationships can create powerful incentives for students to come to school (attendance), even students who report that school work is difficult and expectations are hard to meet (Fine, 1991; Lee et al., 2000).

Regarding the RSB of school suspension, peer influence and family factors contribute to RSBs. For example, antisocial, aggressive adolescents whom are frequently suspended from school gravitate towards each other, forming deviant peer groups (Cairns et al., 1988; Dishion et al., 1991; Espelage et al., 2003). Mother's marital status, maternal depression, marijuana use and criminal history predict the Risky School Behavior of student's suspension from school (Smith-McKeever & Gao, 2010).

Other research has focused on "behavior problems, social skills challenges, aggression and violence," and factors within the individual, family, peer group, and school that can be reflected at school as office discipline referrals and school suspensions. Behavior problems in children (Sandler, 1980) and adolescents (Kashani & Shepperd, 1990) have been associated with low family support. Robl et al. (2012) found a relationship between problematic social behaviors in school age children and parental involvement. The support children and adolescents perceive plays an undeniable role in their outcomes including social skill development (Demaray & Elliott, 2001; Demaray & Malecki, 2002; Malecki & Elliott, 1999). Zerkowicz (1987) demonstrated that nurturance from parents and other adults was negatively correlated with aggressive behavior. Intra-individual factors such as Character Strengths are associated with reduced problem behavior such as violence (Meyer, Farrell, Northup, Kung, & Plybon, 2000). Character Strengths were also related to less psychopathology among youth with the strengths Persistence, Honesty, Prudence, and Love being substantially related to fewer externalizing problems such as aggression (Park & Peterson, 2008a).

Other studies connect adolescent risky behavior such as drug use, delinquency, alcohol abuse, smoking, and sexual activity to the factors within the individual as well as family and school. The support children and adolescents perceive plays an undeniable role in their outcomes

including drug use and delinquency (Bender & Losel, 1997; Frauenglass et al., 1997; Garnefski & Diekstra, 1996; Lifrak et al., 1997; Licitra-Kleckler & Wass, 1993; Piko, 2000). Students who are more connected to the school may be less likely to engage in risky behaviors (Resnick et al., 1997). Character Strengths are associated with reduced problems such as substance use (Benson, Leffert, Scales & Blyth, 1998), alcohol abuse (Hawkins, Catalano, & Miller, 1992; Hudley & Graham, 1993, 1995), and smoking (Lochman, Coie, Underwood, & Terry, 1993). Ma et al., Wiley (2008) found that one specific Character Strength (love of learning) was associated with self-reported abstinence from sexual intercourse for adolescent boys and self-reported abstinence from drug use in boys and girls.

### **Multiple Context Perspective**

It is important to examine influences in multiple life contexts that impact development, as factors contributing to developmental outcome variables do not operate in isolation, but are influenced by and have influence within other systems. According to the ecological theory of development, we must focus not only on the developing individual but also on the interrelations between the individual and their contexts, and on the interconnections among the contexts themselves (Bronfenbrenner, 1979, 1986). The ecological model also suggests that each setting can not be considered in isolation, because they themselves are located within a neighborhood or community, which influences how they are structured and what takes place in them. The community in which these settings are located is itself, embedded in a broader context that is shaped by culture, geography, and historical forces (Bronfenbrenner, 1979).

According to Bronfenbrenner (1979), the ecology of development can be thought of as having four distinct levels, the micro-system, the meso-system, the exo-system, and the marco-system. The micro-system is the immediate settings in which adolescents live such as the family

and schools. For adolescents in modern societies, there are four main contexts in which young people spend time: families, peer groups, schools, and work / leisure settings (Steinberg, 2011). It is on three of these settings that the current study will focus examining variables in the family (parental achievement orientation, parental involvement), peer (peer achievement orientation), and school (school attachment, teacher social support). Patterns of adolescent achievement and general development are the result of a cumulative process that includes a long history of experience and socialization in school, in the family, in the peer group, and in the community (Steinberg, 2011).

The meso-system is the system of relations between these immediate settings, such as the family-school link and the family-peer group link. For example, parents often “manage” their adolescent’s friendships by monitoring the individuals their child spends time with, guiding their child towards peers they like, prohibiting contact with peers they dislike (Mounts, 2004, 2007) and supporting friendships they approve of (Tilton-Weaver & Galambos, 2003). Adolescents whose parents help their teenagers work out problems with friends are less likely to be involved in drug use and delinquent activity and report more positive relationships with their friends (Mounts, 2004). Adolescents are more likely to conform to their peers’ opinions when it comes to short-term, day-to-day, and social matters – style of dress, tastes in music, choices, among leisure activities, etc. particularly during the junior high school and early high school years; however, when it comes to long-term questions concerning educational / occupational plans, values, religious beliefs, or ethics, teenagers are primarily influenced by their parents (Collins & Steinberg, 2006). Adolescents from authoritative homes are less susceptible to antisocial peer pressure, but they may be more susceptible to the influence of positive peers. Adolescents from authoritative homes are less likely than other teenagers to be influenced by having drug-using

friends, but they are more likely than their peers to be influenced by having friends who perform well in school (Mounts & Steinberg, 1995).

The exo-system is composed of the settings that do not directly contain the adolescent, but affect them indirectly such as the parent's workplace. The macro-system is the broader context of culture and historical period in which the adolescent lives (Bronfenbrenner, 1979). Additionally, the individual is not a passive recipient of experiences in these settings, but someone who helps to construct the settings (Santrock, 2008). The interaction between individual and context can have reciprocal influences; for example, parents play a role in socializing certain traits in their children, these orientations, whether towards aggression or Academic Achievement; predispose adolescents towards choosing certain friends or crowds to affiliate with. Once in these cliques or crowds, adolescents are rewarded for the traits that led them there in the first place, and these traits are strengthened which is one problem with accounts that posit the peer group as more relevant than the family (Harris, 1998) that they fail to take into account the fact that the family has a strong effect on adolescents' choice of peers (Steinberg, 2011).

### **Character Strengths.**

In addition to the factors related to achievement within the family, peer group, and school setting, Character Strengths are related to Academic Achievement, in children and youth (Park & Peterson, 2008). For centuries, building and strengthening good character among children and youth have been universal goals for parenting and education. Good character is not simply the absence of deficits, problems, and pathology but rather a well-developed cluster of positive traits (Park & Peterson, 2009a). The building and enhancing of character not only reduces the possibility of negative outcomes (Botvin, Baker, Dusenbury, Botvin, & Diaz, 1995), but are important in their

own right as indicators and indeed causes of healthy development and thriving (Colby & Damon, 1992; Damon, 1988; Park, 2004a; Weissberg, Gullotta, Hampton, Ryan, & Adams, 1997).

Character refers to those aspects of personality that are morally valued and good character is at the core of positive youth development perspective (Park & Peterson, 2009a); all adolescents have strengths by virtue of plasticity that exists within the developmental system (Lerner, 2002). The positive youth development perspective is an alternative to the deficit models of development. Instead of searching for the conditions that may decrease problem behaviors or prevent problems from occurring, the positive youth development perspective broadens the scope of research to include an assessment of the individual – context relations that promote thriving across adolescence that may have a preventative effect (Lerner et al., 2009). From this perspective, thriving in adolescences is not seen as the absence of problems (bullying, drinking, unsafe sex, school failure, or substance abuse, etc.) but growth of attributes that mark a flourishing, healthy young person e.g. the characteristic termed the “Five C’s of positive youth development (Eccles & Gootman, 2002). One of the most widely cited models of positive youth development is that of Richard Lerner (Steinberg, 2011). According to Lerner, Almerig, Theokas, and Lerner (2005), the “Five C’s” (Competence, Confidence, Caring, Character and Connection) are the current standard for measuring positive development and account for a successful transition from adolescence to adulthood. The fourth “C,” Character, is defined as the respect of societal and cultural norms, possession of standards for correct behaviors, and a sense of right and wrong (morality, and integrity). It is further defined by altruism, having a sense of responsibility for others, exhibiting prosocial behavior and helping without being asked.

Character Strengths are universal (Dahlsgaard, Peterson, & Seligman, 2005; Park et al., 2006). High rates of agreement, desirability, and development of VIA Character Strengths were

found in remote cultures (Kenyan Maasai & Inughuit in Northern Greenland) and the U.S. (U. of Illinois students; Biswas-Diener, 2006). VIA Character Strengths are remarkably similar across 54 nations and across the United States (Park, Peterson, & Seligman, 2006). Young adults (ages 18-24) from the US and Japan showed similar distributions of VIA strengths – higher strengths of kindness, humor, and love and lower strengths in prudence, modesty, and self-regulation; in addition females reported more kindness and love while males reported more bravery and creativity (Shimai, Otake, Park, Peterson, & Seligman, 2006). Character may occupy the most central role in the field of positive psychology (Seligman & Csikszentmihalyi, 2000). Pleasure, flow, and other positive experiences are enabled by good character (Park & Peterson, 2009a; Peterson, Ruch, Beerman, Park, & Seligman, 2007).

Over the years, there have been a number of major nationally initiated character-education movements, including the Character Education Partnership, the Character Education Network, the Aspen Declaration on Character Education, and the much-publicized Character Counts campaign. Despite current nationwide efforts and interest to promote character and virtues among young people through school programs, concerns have been voiced about the effectiveness of these programs and lack of a consensual rationale for choosing the virtues and values to foster (Peterson & Seligman, 2004). Needed is an underlying theoretical framework for character development – one informed by developmental theory and research – to guide the design, delivery, and evaluation of programs (Kohn, 1997).

Peterson and Seligman (2004) compiled a collection of 24 universal Character Strengths organized under six broader virtues. Character Strengths are measured by an overall total Character Strength index as well as 24 separate indexes for individual Character Strengths to allow for more specific analysis of contributing factors using the VIA Inventory of Strengths (commonly

known as the VIA Survey) which was developed, validated, and utilized in research for adults (Peterson et al., 2004) and adolescents (Park & Peterson, 2005). Analysis of all 24 Character Strengths reveals that nine specific Character Strengths (persistence, judgment, love of learning, self-regulation, prudence, fairness, hope, perspective/wisdom, and curiosity) have higher magnitude correlations with Academic Achievement in college students (Lounsbury, Fisher, Levy, & Welsh, 2009) and four specific characters strengths (persistence, love, gratitude and hope) have been found to predict Academic Achievement in middle school students (Park & Peterson, 2009b). After controlling for student IQ scores with middle school students, six specific characters strengths (persistence, fairness, gratitude, honesty, hope, and perspective) predicted end-of-year grade point average (Park & Peterson, 2007). These findings are consistent with previous research showing that prosocial behaviors predict Academic Achievement above-and-beyond intellectual ability per se (Caprara et al., 2000; Wentzel & Caldwell, 1997).

Character Strengths are associated with reduced problems such as substance use (Benson et al., 1998), alcohol abuse (Hawkins et al., 1992; Hudley & Graham, 1993, 1995), smoking (Lochman et al., 1993), violence (Meyer et al., 2000), depression (O'Donnell, Hawkins, Catalano, Abbott, & Day, 1995), and suicidal ideation (Pepler, King, Craig, Byrd, & Bream, 1995). Ma et al. (2008) found that one specific Character Strength (love of learning) was associated with self-reported abstinence from sexual intercourse for adolescent boys and self-reported abstinence from drug use in boys and girls. Character Strengths were also related to less psychopathology among youth. The strengths of hope, zest, and leadership were substantially related to fewer internalizing problems such as depression and anxiety disorders, whereas the strengths of persistence, honesty, prudence, and love were substantially related to fewer externalizing problems such as aggression (Park & Peterson, 2008a). While these studies did not include Risky School Behaviors as a specific



outcome measure, there is a clear association between many of these outcomes (substance use, alcohol abuse, violence, depression, aggression) and the Risky School Behaviors of attendance, office discipline referrals, and school suspensions.

The development of an individual's character is influenced by genetics, family, peers, and teachers; character is created and/or revealed by challenge; character can be taught (Park & Peterson, 2012). Family influences impact Academic Achievement by encouraging autonomy, instilling a sense of curiosity and learning for intrinsic rewards, and providing a stable environment (Park & Peterson, 2008b). Some variation in Character Strengths has been found by gender at other developmental ages (Toner et al., 2012; Park & Peterson, 2006b). Gender may influence the endorsement of certain strengths over others, with girls tending to score higher than boys on some strengths (appreciation of beauty, kindness, love, fairness, gratitude, perspective, and spirituality; Park, 2004; Linley et al., 2007). Indeed, measures of normal personality, such as the Big Five traits, reveal that women typically score higher than men on Agreeableness, Conscientiousness and Neuroticism (McCrae, 2002) yet little research has focused upon youth.

### **Adolescent Achievement Orientation**

As indicated above, multiple contexts external to the individual (e.g., family, peers, and schools) play an important role in adolescent development (Steinberg, 2011); however, the individual is not a passive recipient of experiences in these settings, but someone who helps to construct the settings (Santrock, 2008). The interaction between individual and context can have reciprocal influences. Factors within the adolescent such as beliefs and motivations include the need for achievement (McClelland et al., 1953), fear of failure (Speilberger, 1966), the motivation to succeed (with intrinsically motivated individuals more likely to persist in the face of failure; Pintrich, Roeser, DeGroot, 1994), judgment about likelihood of succeeding or failing (Dweck,

2002), adolescent's view of intelligence as fixed or changeable (Stipek & Gralinsky, 1996), whether the adolescent is confident in their ability (self-efficacy; Bandura, Barbaranelli, Caprana, & Pastorelli, 1996), and attributions of their previous successes and failures (Dweck, 2002).

Contemporary theories tend to stress the interaction of motives, beliefs, attributions and goals as influencing adolescents' achievement orientation (Steinberg, 2011). Adolescents who believe that ability is malleable, who are motivated by intrinsic rather than extrinsic rewards, who are confident about their abilities, and who attribute their successes and failures to effort rather than to things they can't control, achieve more in school than their peers (Steinberg, 2011). Need for achievement is an intrinsically motivated desire to perform well (McClelland et al., 1953). Motivation becomes a more and more important determinant of success during adolescence, as individuals increasingly are expected to take charge of their own educational careers and, by the time one enters college, doing well is influenced as much by conscientiousness as it is by intelligence (Poropat, 2009).

When students have stronger bonds to their school and more positive achievement motives; these beliefs and emotions lead to fewer problems, better attendance, lower rates of delinquency, more supportive friendships, and higher scores on tests of achievement (Eccles, 2004; Loukas et al., 2006; Ryan & Patrick, 2001; Way & Pahl, 2001). Limited research has been conducted on associations between adolescent achievement orientation and various RSBs that may interfere with achievement.

### **Parent Achievement Orientation**

Students whose parents are involved in school activities (such as parent-teacher conferences and "back-to-school" nights) who encourage and emphasize academic success, and who use authoritative parenting practices do better in secondary school than do their peers

(Gregory & Weinstein, 2004; Hill & Tyson, 2009; Steinberg, Lamborn, Dornbusch, & Darling, 1992). Forty years of research has effectively reached a consensus about the importance and benefits of authoritative parenting (Baumrind, 1971) including its impact on Academic Achievement in adolescents (Aunola et al., 2000; Paulson et al., 1998) and myriad other outcomes such as being more responsible, self-assured, creative, intellectually curious, socially skilled, and academically successful (Steinberg, 2011). Parents who encourage school success set higher standards for school performance and homework, structure the home environment to support academic pursuits, and are involved in the child's education. Authoritative parents promote the development of a healthy achievement orientation including an emphasis on intrinsic motivation and a healthier attribution style which in turn, enhances adolescents' school performance.

Adolescents with a strong need for achievement come from families in which parents have set high performance standards, have rewarded achievement success during childhood, and have encouraged autonomy and independence (Rosen & D'Andrade, 1959). Parental values and expectations are found to be related positively to achievement outcomes (Paulson, 1994b; Steinberg et al., 1992; Yee & Eccles, 1988). Parental messages, both subtle and overt, influence adolescents' own beliefs about themselves and the value of educational choices. Adolescents' achievement is directly related to the parents' values and expectations (Jodl et al., 2001) and adolescents who have had warm and close relationships with their parents are more likely to have similar attitudes and values (Brody et al., 1994). Eccles' expectancy-value model emphasizes parents as role models, sources of reinforcement, and providers of information, resources, and opportunities for their children (Eccles & Harold, 1993). Parental messages both subtle and overt influence adolescents' own beliefs about themselves and the value of educational choices (Eccles et al., 1998). Parents' expectations for their children's eventual educational attainment have been

related to children's own educational expectations and self-concepts, as well as to their actual academic performance (Halle et al., 1997; Phillips, 1987). In addition, other research has found that one factor that helps protect low-income students against the impact of low teacher expectations is having high expectations for achievement from their parents (Benner & Mistry, 2007).

Using adolescent reports, Paulson (1996) found that adolescents perceived their parents' values towards achievement as constant from 9<sup>th</sup> to 12<sup>th</sup> grade; despite also reporting a decrease in parental involvement (interest in schoolwork and involvement in school functions) from 9<sup>th</sup> to 12<sup>th</sup> grade. This finding implies that while parents are less involved in the day-to-day activities of their high school student, the adolescent continues to be aware of their parents' values towards achievement through the 12<sup>th</sup> grade. Also, interestingly, students' perceptions of parenting style, parental involvement, teaching style and school atmosphere significantly predicted their school achievement; however, it is students' motivations and self-competence that mediate the relations between students' context and their achievement (Marchant et al., 2001). Furthermore, parental values, teacher responsiveness, school responsiveness, and supportive social environment predicted students' motivations and academic competence above and beyond parenting style, parental involvement, and teacher control (Marchant, Paulson, Rothlisberg, 2001) stressing the importance of parental values towards achievement as the critical parenting element specifically linked to Academic Achievement.

The same parenting styles and practices that are correlated with adolescent Academic Achievement also impact adolescent school behavior. Authoritative parenting is linked to being more responsible, self-assured, creative, intellectually curious, socially skilled, and academically successful (Steinberg, 2011). Non authoritative parenting may lead to the development of

emotional and behavioral problems (Burke, Pardini, & Loeber, 2008; Dishion, Nelson, & Bullock, 2004). Adolescents raised in indifferent (parenting) homes are often impulsive and more likely to be involved in delinquent behavior and in precocious experiments with sex, drugs, and alcohol (Collins & Steinberg, 2006). Parenting that is indifferent, neglectful, hostile, or abusive has been shown consistently to have harmful effects on adolescents' mental health and development, leading to depression and a variety of behavior problems (Buehler, 2006; Coley, Medeiros, & Schindler, 2008; Hoeve et al., 2008; Pittman & Chase-Lansdale, 2001). Problematic parent-child relationships (ones that are coercive and hostile) lead to the development of an antisocial disposition in the child, and this disposition contributes, in elementary school to both school failure and rejection by classmates (Dishion et al, 1991; Pardini, Loeber, & Stouthamer-Loeber, 2005). Increasingly, improvements in parenting during adolescence reduce teenagers' association with antisocial peers, which, in turn, reduces problematic behavior (Simons, Chao, Conger, & Elder, 2001).

### **Parent Involvement**

The home environment has been shown to impact Academic Achievement in adolescents. Students whose parents are involved in school activities (such as parent-teacher conferences and "back-to-school" nights) who encourage and emphasize academic success, and who use authoritative parenting practices do better in secondary school than do their peers (Gregory & Weinstein, 2004; Hill & Tyson, 2009; Steinberg et al., 1992). Specifically, parenting behaviors associated with children's Academic Achievement include authoritative parenting styles (Epstein & Dauber, 1991), book reading (Stevenson & Baker, 1987), helping with homework (Trusty, 1996), and school involvement (Wilson & Wilson, 1992). Parents who encourage school success

set higher standards for school performance and homework, structure the home environment to support academic pursuits, and are involved in the child's education.

Parental involvement is considered to be an important aspect of parenting, especially in relation to children's Academic Achievement (Hess & Holloway, 1984). In addition to parental values towards achievement, two other dimensions of parental involvement are found to be related positively to achievement outcomes; namely parental values and expectations (Paulson, 1994b; Steinberg et al., 1992; Yee & Eccles, 1988), interest in grades and helping with homework (Paulson, 1994b; Steinberg et al, 1992) and involvement in school functions (Paulson, 1994b; Steinberg et al, 1992; Stevenson & Baker, 1987). Attending school programs, helping in course selection, and maintaining interest in school activities and assignments, contribute to school success (Benner et al., 2008) and predict Academic Achievement (Paulson, 1994a). Parents' involvement with their children has been shown to impact achievement motivation and behavior in a number of studies (Epstein & Dauber, 1991; Eccles et al., 1998; Kashani et al., 1994; Scanlan & Lewthwaite, 1986; Stevenson & Baker, 1987).

Robl et al. (2012) found a relationship between parental involvement and problematic social behaviors in school age children. One recent study of Latino students found that how involved a student's parents were in school influenced their high school children's achievement directly (as in other studies, adolescents whose parents are involved in school perform better than their peers) but also affected teachers' expectations for their child's achievement, which in turn, led to better student performance (Kuperminc, Darnell, & Alvarez-Jiminez, 2008). Hill et al. (2004) found that parent academic involvement in the 7<sup>th</sup> grade was negatively related to 8<sup>th</sup> grade teacher-reported behavioral problems. Other factors related to parental involvement (parental psychopathology and support) have been shown to be related to problem behaviors, aggressive

behaviors and the RSB of suspension. For example, mother's marital status, maternal depression, marijuana use and criminal history predict the Risky School Behavior of student's suspension from school (Smith-McKeever & Gao, 2010). Low family support has been associated with behavior problems in children (Sandler, 1980) and adolescents (Kashani & Shepperd, 1990). Zerkowicz (1987) demonstrated that nurturance from parents and other adults was negatively correlated with aggressive behavior.

### **Peer Achievement Orientation**

As children mature, the focus of their social development shifts from parents to include peers, other adults, and schools; thus social relationships that are developed in school become increasingly important as children move into adolescence (Lee & Burkam, 2003). The relationship between peers and adolescent behavior is complex as there are effects of both selection and socialization. In some cases, adolescents select their peers based on common interests, and in other cases, interests are developed or reinforced by peers. Even within the same school, cliques and crowds differ enormously in the extent to which they encourage or discourage academic success (Clasen & Brown, 1985). Some peer groups may place a great deal of pressure on their members to succeed in school and may in engage in behaviors (such as studying together) that promote academic success. Other groups, may actively discourage scholastic efforts and success. Adolescents and those who they choose as their friends tend to be similar in their attitudes towards school, in their school achievement, and in their educational plans (Wentzel & Caldwell, 1997); although, this tends to be more true among White and Asian adolescents than among Black adolescents (Hamm, 2000). Adolescents who earn high grades, study a great deal, and plan to go on to college usually have friends who share these characteristics and aspirations. How much time students devote to schoolwork affects their involvement in other activities. Friendships are often

drawn from the peers with whom they have classes and if schools track students on the basis of their Academic Achievement, their friends will be more likely to have similar records in school performance (Crosnoe, 2002).

While parents clearly play a large role in their children's Academic Achievement, some studies suggest that peers have the most salient influences on adolescents' day-to-day school behaviors such as doing homework and exerting effort in class (Kurdek et al., 1995; Midgley & Urdan, 1995; Steinberg, 1996). An adolescent's peer's school performance can impact his/her own school performance for better or worse; having friends who earn high grades and aspire to further education can enhance adolescents' achievement, whereas having friends who earn low grades or disparage school success may interfere with it (Steinberg, 1996). Students with best friends who achieve high grades in school are more likely to show improvements in their own grades than students who begin at similar levels of achievement but whose friends are not high achievers (Mounts & Steinberg, 1995). Friends also influence course selection and appear to play an especially important role in girls' decisions to take math and science classes (Riegle-Crumb, Farkas, & Muller, 2006). Adolescents whose friends support Academic Achievement perform better in school than do peers whose friends disparage doing well in school (Steinberg, 2011). In addition, having friends who value school can positively affect Academic Achievement, even among teenagers who do not come from authoritative homes; having academically oriented peers is especially beneficial to adolescents from single-parent homes, where parental involvement in schooling is typically lower (Garg, Melanson, & Levin, 2007).

Peer achievement orientation not only impacts adolescent achievement, but impacts other behavioral choices. Of all the characteristics of friends that influence adolescents' behavior, their friends' school performance has the greatest impact, not only on their own Academic



Achievement, but also on their involvement in problem behavior and drug use (Cook, Deng, & Morgano, 2007). Adolescents whose friends are disruptive in school tend to become more disruptive over time (Berndt & Keefe, 1995). Additionally, antisocial, aggressive adolescents whom are frequently suspended from school gravitate towards each other, forming deviant peer groups (Cairns et al., 1988; Dishion et al., 1991; Espelage et al., 2003). Antisocial adolescents who are drawn towards other antisocial peers become more antisocial over time as a result (Vitaro, Tremblay, Kerr, Pagani, & Bukowski, 1997).

Peer expectations for prosocial forms of behavior also have been related to students' motivation to behave in socially competent ways (Wentzel, Filisetti, & Looney, 2007). Students whose friends are more engaged in school are themselves more engaged and less likely to drop out (Ream & Rumberger, 2008). Again, both selection and socialization are at work. Adolescents who use alcohol or tobacco, for example are more likely to choose other alcohol or tobacco users as friends, especially when they attend schools with a large number of substance using students. By the same token, spending time with friends who use these substances increases the adolescents' own use as well (Bryant & Zimmerman, 2002; H. Cleveland & Weibe, 2003; Ennett et al., 2006; Urberg, Degirmencioglu, & Pilgrim, 1997). Peer influence (socialization) is far stronger over day-to-day preferences in things like clothing or music than over many of the behaviors that adult worry about such as binge drinking or risky sex (Jaccard, Blanton, & Dodge 2005).

### **Teacher Social Support**

In addition to family and peer contexts, aspects of the teacher- and school-adolescent relationship contribute to Academic Achievement. Coleman (1988) noted the special significance of social capital for children. As children mature, the focus of their social development shifts from parents to include peers, other adults, and schools; thus social relationships that are developed in

school become increasingly important as children move into adolescence (Lee & Burkam, 2003). Many of the factors that promote resilience are closely tied to social support in children's lives; for example, researchers have identified a significant supportive adult (e.g. teacher) in the child's life or an emotionally supportive parent (Brooks, 1994) as buffers for vulnerable children (Rak & Patterson, 1996), and the support children and adolescents perceive plays an undeniable role in their outcomes including academics (Demaray & Malecki, 2002; Levitt et al., 1994; Richman et al., 1998) and self-concept (Cauce et al., 1982; Demaray & Elliott, 2001; Forman, 1988; Kloomek & Cosden, 1994; Rothman & Cosden, 1995, Wenz-Gross & Siperstein, 1998). Specifically, when teachers are supportive but firm and maintain high, well-defined standards for behavior and academic work, students have stronger bonds to their school and more positive achievement motives; these beliefs and emotions in turn, lead to more supportive friendships, and higher scores on tests of achievement (Eccles, 2004; Loukas et al., 2006; Ryan & Patrick, 2001; Way & Pahl, 2001). Students are more engaged and achieve more in schools that are more personal, less departmentalized, and less rigidly tracked and in which team teaching is used frequently (Gamoran, 1992).

Students who believe that teachers supported their efforts to succeed in school displayed improved achievement (Croninger & Lee, 2001). Students achieve and are engaged more in school when they attend schools where relationships between students and teachers are positive, and teachers are both supportive and demanding, enhancing adolescents' psychological well-being as well as their achievement (Eccles, 2004; Gutierrez, 2000; Kalil & Ziol-Guest, 2008; Reddy, Rhodes, & Mulhall, 2003; Roeser, Eccles, & Freedman-Doan, 1999). In a study focusing on 1-year achievement gains for middle school students in Chicago, students' reports of social support from teachers, parents, peers, and neighborhood were positively but modestly related to learning

when they received strong social support from these sources and attended schools where they were pushed academically (Lee & Smith, 1999).

Research has shown that during the transition from primary to secondary school, there is a decrease in the perception of teacher support (Furman & Buhrmester, 1992). Support from teachers decreases as the age of the adolescent increases (Malecki & Demaray, 2002). Young adolescents report declines in the degree to which teachers provide emotional support after the transition to middle school, and that these declines correspond to decreases in academic motivation and achievement (Feldlaufer, Midgley, & Eccles, 1988; Midgley et al, 1989); which is precisely why teacher social support is an important variable to study.

Regarding behavior, research in the area of social support has demonstrated that the support children and adolescents perceive plays an undeniable role in their outcomes including social skills (Demaray & Elliott, 2001; Demaray & Malecki, 2002; Malecki & Elliott, 1999) and drug use and delinquency (Bender & Losel, 1997; Frauenglass et al., 1997; Garnefski & Diekstra, 1996; Lifrak et al., 1997; Licitra-Kleckler & Wass, 1993; Piko, 2000). When teachers are supportive but firm and maintain high, well-defined standards for behavior and academic work, students have stronger bonds to their school and more positive achievement motives; these beliefs and emotions in turn, lead to fewer problems, better attendance and lower rates of delinquency (Eccles, 2004; Loukas et al. 2006; Ryan & Patrick, 2001; Way & Pahl, 2001).

Adolescents' perceptions that teachers care about and like them as individuals have been related to positive motivational outcomes including the pursuit of goals to learn and to behave prosocially and responsibly, educational aspirations and values, and positive self-concept (Goodenow, 1993; Harter, 1996; Midgley et al., 1989; Wentzel, 1997; Wentzel & Wigfield, 1998). When middle school students are well-liked by their teachers (Wentzel & Asher, 1995)

and perceive that their teachers care about them (Roeser, Midgley, & Urdan, 1996), and are available to help with social and academic problems (Newman, 2000), they also tend to display positive forms of social behavior, motivation, and academic accomplishments. Qualitative studies have also shown that positive social relationships can create powerful incentives for students to come to school (attendance), even for students who report that school work is difficult and expectations are hard to meet (Fine, 1991; Lee et al., 2000). Students who leave high school before graduating often cite lack of social support as one reason for doing so. Students who are disaffected with school report being unconnected with teachers, even after having made efforts to gain assistance for school personnel (Croninger & Lee, 2001). In general, dropping out is less likely from schools where the environment is orderly, where academic pursuits are emphasized, and where the faculty is supportive and committed; most important, students are less likely to drop out of high schools where relationships between teachers and students are positive (Lee & Burkam, 2003). Students who are particularly at risk of dropping out are helped especially by having teachers who are sources of social support and guidance (Croninger & Lee, 2001). Garnefski and Diekstra (1996) found that for high school students age 16-18, there was a strong relation between problem behavior and an adolescent's negative perception of social support from school.

### **School Attachment**

In addition to family and peer contexts, aspects of the teacher- and school-adolescent relationship contribute to Academic Achievement. Coleman (1988) noted the special significance of social capital for children. As children mature, the focus of their social development shifts from parents to include peers, other adults, and schools; thus social relationships that are developed in school become increasingly important as children move into adolescence (Lee & Burkam, 2003). When teachers are supportive but firm and maintain high, well-defined standards for behavior and

academic work, students have stronger bonds to their school and more positive achievement motives; these beliefs and emotions in turn, lead to fewer problems, better attendance, lower rates of delinquency, more supportive friendships, and higher scores on tests of achievement (Eccles, 2004; Loukas et al., 2006; Ryan & Patrick, 2001; Way & Pahl, 2001). Students in urban schools report less of a sense of “belonging” to their school, which leads to disengagement and poor achievement (Anderman, 2002).

School attachment is defined as student’s overall connectedness to school (Somers & Gizzi, 2001). Research has demonstrated that feelings of attachment to school are related to levels of school engagement including persistent effort in schoolwork, increased academic motivation, expectations for success, valuing schoolwork, and general school motivation and interest (Voelkl, 1996). Risky School Behaviors have been found to be lower when adolescents were more involved in and attached to school (Somers & Gizzi, 2001). It is likely those students who are more connected to the school may be less likely to engage in risky behaviors (Resnick et al., 1997). Finn and Cox (1992) found that student identification with school was positively related to attendance, preparedness for class, disciplined behavior, and attentiveness in class. Truancy, absenteeism, and the eventual withdrawal from school have been found to be associated with lack of belonging to school and not valuing school (Voelkl, 1996; Newmann et al., 1989). Isolation in conjunction with problematic peer encounters at school was found to significantly increase delinquency and delinquent peer associations (Kreager, 2004).

### **Summary**

Based on the reviewed research, multiple factors are related to adolescent Academic Achievement and Risky School Behaviors. It is important to examine influences in multiple life contexts that impact development, as factors contributing to these outcome variables do not operate

in isolation, but are influenced by and have influence within other systems. A sample of variables arising from the literature, from individual, family, peer, and school contexts were included in the current study in order to best measure potential associations of individual Character Strengths with adolescents' Academic Achievement and Risky Schools Behaviors that may interfere with it. The intra-personal factors of adolescent achievement orientation and Character Strength have each been shown to be associated with Academic Achievement and engaging in RSB. The contextual factors of Parental Achievement Orientation, Parental involvement, Peer Achievement Orientation, Teacher Social support, and School Attachment have each been shown to be associated with Academic Achievement and engaging in RSB.

This study is the first to expand understanding of these key interrelated but unique outcome variables of both Academic Achievement and Risky School Behavior through examination of individual Character Strengths in the presence of other key intrapersonal and contextual variables from multiple systems in an adolescent's life including intrapersonal/individual (academic orientation, Character Strengths) and microsystem (family, peer, school) factors.

Given the literature reviewed, it was expected that all of the individual Character Strengths would be positively correlated related with Academic Achievement; however, nine individual Character Strengths (Persistence, Judgment, Love of learning, Self-regulation, Prudence, Fairness, Hope, Perspective/wisdom, and Curiosity) are hypothesized to have a relatively higher magnitude of correlation with Academic Achievement. Having minimal previous literature relating Character Strengths and RSB, analysis regarding which individual Character Strengths will be have a relatively higher magnitude of correlation with absence of Risky School Behavior is largely exploratory with the exception of love of learning; however, based on the constructs they represent, it was expected that the Character Strengths relating to controlling oneself and impulses (Self-

regulation), making objective decisions (Judgment), caring about others (Love), using discretion (Prudence), and giving others direction (Leadership) would have a relatively higher magnitude correlation with low RSB. When considered together, AACS and RSBCS were expected to explain more of the variance in their relative outcome measures than adolescent achievement orientation. When all variables are considered (adolescent achievement orientation, parental achievement orientation, parental involvement, peer achievement orientation, teacher social support, school attachment), AACS and RSBCS were expected to explain a specific portion of the variance in their respective outcome measures. Given that Character Strengths are developed in households with warm and responsive parents that encourage the development of autonomy (Park & Peterson, 2012), it was hypothesized that a select composite of individual Character Strengths AACS and RSBCS would act as a partial mediator for the combination of parental variables (parental achievement orientation, parental involvement) in predicting Academic Achievement and Risky School Behavior, respectively. Also, gender would have a moderating effect on the relation between AACS and RSBCS and their respective outcomes.

The results of this study are expected to contribute to a better understanding of the function of Character Strengths in adolescents and understanding their relations to other important outcomes in high school success including Academic Achievement and Risky School Behavior. This information can be used by administrators, teachers, counselors, social workers, and psychologists to inform school-wide character education programs as well as individual character building interventions with the goal of increasing student achievement and decreasing Risky School Behaviors.

## CHAPTER 3 METHODOLOGY

### *Participants*

The participants in this study included 509 high school students from two suburban public high schools in the Midwestern United States. From school one, all 10<sup>th</sup>-12<sup>th</sup> grade students enrolled in 10 periods A.P. Psychology and 1 period of (International Baccalaureate) Psychology during the 2<sup>nd</sup> semester were included in possible selection. No students were excluded. From school two, all students enrolled in 3 periods of 2<sup>nd</sup> trimester Psychology, 4 periods of 3<sup>rd</sup> trimester ACT prep, 3 periods of psychology, and 1 period of literature were included in possible selection. For both schools, each period was composed of approximately 25 total students from varying grades. Of the classes included, 2 parents refused consent for study participation, and 4 additional participants submitted unusable/invalid protocols.

Demographic information and variable descriptive statistics from the combined sample (n=509) are listed in Table 1. Overall sample characteristics included more female (58%) than male (42%); mostly 11<sup>th</sup> graders (45%) with large amounts of 10<sup>th</sup> and 12<sup>th</sup> grade students (28% and 23% respectively) and an average age of 16.12 years. The sample was mostly Caucasian (71%) but also included Asian/Pacific Islander (12%) and several other race/ethnicity categories each less than 6%. Most participants did not receive free lunch (76%), and lived “with mom and dad” (70%) with other significant responses of “mom-only” (11%) and “parent+stepparent” (9%). The average level of parental education was between “some college” and “finished college” for both mothers and fathers. During preliminary analyses, a Chi-Square Test (categorical) and ANOVA (continuous) were performed and between-group differences were found to be significant between the two samples on multiple demographic and study variables (see Table 2). These differences and their impact on data analysis is discussed further in the Results section.



Table 1

*Demographic Characteristics*

	n	%
<u>Gender</u>		
Male	209	41.6%
Female	294	58.4%
<u>Grade</u>		
9th	25	4.9%
10th	140	27.5%
11th	229	45.0%
12th	115	22.6%
<u>Race/Ethnicity</u>		
African American	29	5.7%
Asian/Pacific Islander	62	12.3%
Caucasian	358	70.9%
Hispanic	13	2.6%
Middle Eastern	16	3.2%
other	16	3.2%
indicated >1 response (Caucasian and other race)	11	2.2%
<u>Lunch Status</u>		
free lunch	73	14.6%
reduced lunch	27	5.4%
I do not	381	76.0%
I am unsure	20	4.0%
<u>Live with</u>		
mom and dad	354	69.5%
parent and step-parent	46	9.1%
Mon only	58	11.4%
Dad only	12	2.4%
Mom and dad plus grandparent or other adult	21	4.2%
Grandparent or other adult (w/o mom or dad)	8	1.6%
Parent plus grandparent or other adult	8	1.6%
	Mean	SD
<u>Demographic Variable</u>		
Age	16.12	0.917
Mother's Education	5.62	1.179
Father's Education	5.56	1.354

*Study Variables*Predictor Variable

Adolescent Achievement Orientation	4.51	0.523
Parent Achievement Orientation	4.63	0.512
Parent Involvement	3.53	0.635
Peer Achievement Orientation	4.03	0.697
Teacher Social Support	3.98	0.869
School Attachment	3.51	0.670
Character Strengths		
Appreciation of Beauty	3.77	0.906
Bravery	3.66	0.786
Creativity	3.58	0.891
Curiosity	3.73	0.821
Fairness	3.40	0.835
Forgiveness	3.62	0.947
Gratitude	4.05	0.792
Hope	3.71	0.881
Humor	4.13	0.877
Integrity/Truth	3.32	0.882
Judgement	3.55	0.857
Kindness	3.86	0.772
Leadership	3.53	0.990
Love	3.69	0.911
Love of Learning	3.35	0.912
Modesty	3.55	0.744
Persistence	3.81	0.845
Perspective/Wisdom	3.65	0.755
Prudence	3.41	0.864
Self-regulation	3.11	0.949
Social Intelligence	4.01	0.671
Spirituality	2.81	1.321
Teamwork/Citizenship	3.96	0.691
Zest	3.59	0.935

Criterion Variable

Academic Achievement	2.18	1.330
Risky School Behavior-tardy	3.21	1.162
Risky School Behavior-absence	2.54	0.842

Note: n=509

### *Measures*

Ten instruments, totaling 176 items, were administered to all participants. The variables measured in the study included: achievement orientation of parents, parental involvement, achievement orientation of peers, teacher social support, school attachment, adolescent achievement orientation, Character Strengths, Academic Achievement, and Risky School Behavior. A demographic instrument was also administered.

*Demographics.* A demographic questionnaire was developed specifically for this study. Information on gender, ethnicity, age, school grade, SES, and family structure was obtained.

*Character Strengths.* Character Strengths were assessed by the Values in Action Youth Inventory of Strengths (commonly known as the VIA Youth Survey; Peterson et al., 2004). The short form of the VIA Youth Survey will be used to measure twenty-four Character Strengths listed in Table 1.1. It is designed for youth ages 11-17 and is administered in approximately 15 minutes. The survey contains 96 items, four for each of the twenty-four Character Strengths. Item scores are combined to create 24 Character Strength subscales as well as a measure of overall Character Strength. For example the Character Strengths of persistence is measured with items such as “when I start a project, I always finish it.” Kindness is measured with items such as “I often do nice things for others without being asked.” Respondents use a 5-point scale to indicate whether the item is very much like me 5 or not like me at all 1. Subscales scores are formed by averaging the relevant items (Peterson et al., 2004).

The VIA Youth Survey has good internal consistency with Cronbach’s alphas ranging from .72 - .91. Most subscale scores are skewed but still have acceptable variability. The VIA has demonstrated to have adequate internal consistency, test-retest reliability over 6 months was substantial for each other 24 strengths; correlations in all cases exceeded .45 showing good

stability (Park & Peterson 2006b). The VIA youth has been shown to have good convergent and construct validity. Park and Peterson (2006b) demonstrated convergent validity with each participating student's homeroom teacher independently completing a short measure in which they used 5 point scales rating the degree to which each student displayed each of the strengths. Results show that almost all of the correlations were positive although not always significant with stringent alpha level. Construct validity of the VIA Youth Survey has been established based on relationships with life satisfaction (Argyle, 2001; Diener & Seligman, 2002, Park, Peterson, & Seligman, 2004, Park & Peterson, 2006a), achievement (Park & Peterson, 2005), popularity (Dahlsgaard et al., 2005; Park et al., 2004), social skills, psychopathology, and parent-child strength (Park & Peterson, 2006b). For the current sample, alpha levels for 22 of the 24 Character Strengths ranged from .71-.90. Alpha levels for the Character Strengths of Social Intelligence (.59) and Modesty (.61) were low.

*Adolescent achievement orientation.* Achievement orientation was measured using an adaptation of the 8-item parent achievement orientation subscale on the parent involvement measure developed by Paulson (1994b) as previously reviewed. Items were adapted to measure the adolescent's own achievement orientation rather than the achievement orientation of their parents. For example, an item that read "my mother thinks that education is a very important part of adolescence," will read "*I think that education is a very important part of adolescence.*" As with the parent-version, participants will respond using a 5-point likert scale ranging from "very unlike" to "very like." No information exists on the reliability or validity of this adaptation; however, the alpha level for the current sample was .77 with all 8 items included. Additionally, dropping one item that did not contribute well with the other items for this sample resulted in an alpha of .82.

*Parent Achievement Orientation.* Adolescents completed items from a scale developed by Paulson (1994b) measuring parent involvement. The scale conceptualizes parental involvement as encompassing three constructs with three separate subscales: parental values towards achievement, parental involvement in schoolwork/homework, and parental involvement in school activities. For the purposes of the present study, parent achievement orientation was measured by the parental values towards achievement subscale. The 8 items of the subscale are scored on a 5-point likert scale ranging from “very unlike” to “very like” and include items such as “my parents think that education is a very important part of adolescence.” Scores from the 8 items will be summed to reflect the parent achievement orientation.

This instrument measuring parent involvement shows good reliability and validity (Paulson, 1994b). Cronbach alphas, assessing the reliability of the scales were accomplished, revealing alphas ranging from .67-.81 for maternal parenting and alphas ranging from .61-.78 for paternal parenting. Using three waves of samples of 80, then 167, then 247 participants, principal component factor analysis with varimax rotation was employed to confirm the factors using the combined validation sample (n=247). Two distinct factors appeared with the parental values towards achievement and interest in schoolwork subscales loading on the same factors and the parental involvement in school activities appearing as its own factor. Adolescent’s achievement outcome was positively predicted from high levels of authoritative parenting and the combination of all 3 subscales;  $R=.39$  and  $.35$ ,  $p<.01$  for maternal and paternal parenting, respectively. The alpha level for the current sample was  $.79$  with all 8 items included; however, dropping one item that did not contribute well with the other items for this sample resulted in an alpha of  $.86$ .

*Parent Involvement.* Adolescents completed items from a scale developed by Paulson (1994b) measuring parent involvement. The scale conceptualizes parental involvement as

encompassing three constructs with three separate subscales: parental values towards achievement, parental involvement in schoolwork/homework, and parental involvement in school activities. For the purposes of the present study, parental involvement is conceptualized as the combination of parental involvement in schoolwork/homework and parental involvement in school activities. Both subscales are scored on a 5-point likert scale ranging from “very unlike” to “very like.” The parental involvement in schoolwork/homework subscale includes items such as “my parents make sure that I have done my homework.” The parental involvement in school activities subscale has five items and includes items such as “my parents usually go to parent-teacher conferences.” Two of the five items are reverse scored. A total of 14 items reflecting both scales was summed to reflect the parental involvement construct. Reliability and validity are as reviewed above (Paulson, 1994b). The alpha level for the current sample was .76.

*Peer Achievement Orientation.* Adolescents completed two measures of peer achievement orientation. They answered three questions used by Fuligni, Eccles, and Barber (1995) and Fuligni, Eccles, Barber, and Clements (2001) to measure the proportion of peers that are achievement oriented entitled association with achievement-oriented peers. It requires students respond by rating each item based on the proportion of their friends that the statement applies. Responses are based on a likert-scale ranging from “1-none of my friends” 3-about half of my friends 5-about all of my friends.” It includes items such a “What proportion of your friends are planning to go to college?” Fuligni et al, (1995) found that the association with achievement-oriented peers measure had internal consistency with alpha = 0.72. In 2001, Fuligni et al. reported the measure possessed adequate internal consistencies at both 10<sup>th</sup> and 12<sup>th</sup> grades with alphas of .71 and .74. The alpha level for the current sample was .74; however, this measure was not used

in analysis in lieu of the alternative peer achievement orientation measure with a higher alpha level.

Peer achievement orientation also will be measured using an adaptation of the 8-item parent achievement orientation subscale on the parent involvement measure developed by Paulson (1994b) as previously reviewed. Items were adapted to measure the peer's achievement orientation rather than the achievement orientation of their parents. For example, an item that read "my mother thinks that education is a very important part of adolescence," will read "*my friends* think that education is a very important part of adolescence." As with the parent-version, participants will respond using a 5-point likert scale ranging from "very unlike" to "very like." No information exists on the reliability or validity of this adaptation, however, the alpha level for the current sample was .85 with all 8 items included. Additionally, dropping one item that did not contribute well with the other items for this sample resulted in an alpha of .89.

*Teacher Social Support.* Adolescents completed the 12-item teacher support scale from the Child and Adolescent Social Support Scale (CASSS; Malecki & Elliott, 1999) assessing their perception of the amount of social support they receive from teachers. The CASSS is a 40-item multidimensional scale measuring perceived social support from four sources: parents, teachers, classmates, and friends. There are two versions of the CASSS with Level 2 being appropriate for use with children from 6<sup>th</sup> to 12<sup>th</sup> grade in middle or high schools. It requires students to respond to statements such as, "My teacher(s) help me when I ask." Students respond by rating each item on two aspects: frequency and importance. Frequency ratings consist of a 6-point Likert Scale from 1 (Never) to 6 (Always). Importance ratings consist of a 3-point Likert Scale ranging from 1 (Not Important) to 3 (Very Important). A total of the 12 items frequency scores were used to

reflect teacher social support. The “importance ratings” are intended only for use in clinical interpretation.

The reliability and validity of the CASSS was evaluated by Malecki and Demray (2002) using data from 1,110 students in grades 3 through 12. Analyses provided evidence that the CASSS scores can be used reliably as indicators perceived social support in children and adolescents. Specially, the internal consistency reliability coefficient was .95 for the total scale with an alpha level of .92 for the teacher subscale. Test-retest analyses that were conducted on a small subsample of 85 middle school students that at an 8-week interval revealed coefficients of .70 for the total scale and ranged from .60 to .76 on the subscales.

Evidence for the internal structure of the CASSS was confirmed with moderate to high intercorrelations among the scales of the CASSS with  $r = .32$  to  $.54$  for Level 2. Total scale to subscale correlations ranged from  $.71$  to  $.79$  for level 2. Convergent evidence was demonstrated with 258 middle school students completing the Social Support Scale for Children (Harter, 1985a) and the CASSS. The correlation between total scale scores was  $.70$  and correlations between the corresponding teacher subscales is  $.64$ . These moderate correlations suggest that the CASSS and the SSSC are measuring an extremely similar construct of social support. Additionally, the CASSS covaries with the clinically important constructs of self-concept, social skills, and behavioral indicators (Malecki & Demaray, 2002). The alpha level for the current sample was  $.92$ .

*School Attachment.* Adolescents answered questions from a scale developed by Somers and Gizzi (2001) to measure school attachment. Student attachment is defined as the student’s overall connectedness to school. The 10-item scale was created to identify student’s levels of attachment to the school and tap feelings about enjoying attending school, valuing school, pride in their school and sense of belonging with items including, “I enjoy attending school” and “I feel I



belong here at this school.” Students respond using a 5-point Likert scale ranging from “Strongly Disagree” to “Strongly Agree.” Cronbach’s alpha, a measure of internal consistency reliability was 0.88 for the total sample with 0.89 for girls and 0.86 for boys (Somers & Gizzi, 2001).

Using the instrument measuring school attachment, Somers and Gizzi (2001) found no gender differences in school attachment. School attachment was statistically significant in predicting substance use and aggression nature in an adolescent sample of 547 high school students. School attachment also predicted Risky School Behaviors in both males and females. Results support past findings that adolescents’ levels of involvement in their schools are significantly related to their levels of attachment to their school (Somers & Gizzi, 2001). The alpha level for the current sample was .86.

*Academic Achievement.* Academic Achievement was assessed by self-report. Adolescents were asked to assess their Academic Achievement by answering the question, “What grades do you most often received?” Adolescents will circle the response that most accurately describes their grades: Mostly As, Mostly As and Bs, Mostly Bs, Mostly Bs and Cs, Mostly Cs, Mostly Cs and Ds, Mostly Ds, Mostly Ds and Es, or Mostly Es. When computing the Academic Achievement score, a numeric value will be assigned to each letter grade (Mostly As = 9, Mostly Es = 1). A higher score indicates higher Academic Achievement. This measure was used in analysis.

The student’s academic performance was also be measured by self-reported grade-point-average (GPA). Students indicated their cumulative GPA on a seven-point scale used by (Lounsbury et al, 2009): 1-less than 1.50, 2-1.50-1.99, 3-2.00-2.49, 4-2.50-2.99, 5-3.00-3.49, 6-3.50-3.99, and 7-4.00. A similar 7-point self-report GPA scale was found to be correlated .77 with actual cumulative GPA for non-Freshman in college (Lounsbury et al, 2009). Both Academic Achievement measures were highly correlated; however this measure was not used in analysis.

*Risky School Behavior.* Risky School Behavior is defined as school-related behaviors that reflect risk-taking regarding attendance at school including tardiness to class, unexcused absences, office discipline referrals, and suspensions. These behaviors were assessed by self-report. Adolescents answered questions adapted from the Risky School Behavior Survey (Somers & Gizzi, 2001) assessing the type and frequency of Risky School Behaviors. The response options require participants to rate the frequency of participation in various risky behaviors using a 6-point Likert Scale ranging from “never” to “several times a day.” A total score is created by summing across all individual behaviors with higher scores indicating greater Risky School Behaviors.

Reliability of the Risky School Behavior Survey is established with Cronbach’s alpha as 0.74 for the total sample, 0.65 for girls and 0.75 for boys (Somers & Gizzi, 2001). Construct validity is demonstrated as Risky School Behavior is highly correlated to risky sexual behaviors such as age of first sexual intercourse, number of sexual intercourse partners, use of condoms or other birth control, and peer’s acceptance of teen pregnancy at .69;  $p < 0.001$ . Risky School Behavior also has a negative correlation with school attachment (-0.28;  $p < 0.001$ ), school involvement (-0.21;  $p < 0.001$ ), and future orientation (-0.29;  $p < 0.001$ ) for boys and school attachment (-0.28;  $p < 0.001$ ) and school involvement (-0.24;  $p < 0.001$ ) for girls (Somers & Gizzi, 2001). For the current sample, the reliability of the Risky School Behavior Survey was .55 when all 4 items were combined; however, items from the survey were used individually to examine specific constructs. Item 1 reflects a measure of being tardy to class and was termed RSB-tardy. Item 2 reflects a measure of unexcused school absences and was termed RSB-absence. Items 3 and 4 were combined reflecting a measure of office discipline referral and suspensions, termed RSB-discipline, with alpha level .82; however, the lack of variance in responses (Mean = 2.0, SD=0.273) meant it was unusable for analysis.

*Procedure*

To obtain the current sample size of 509 students, two schools were approached. Each school limited research to a convenience sample of primarily psychology and/or statistics students. A Parental School Information Sheet detailing the study (i.e., the purpose, procedure, risks, benefits, confidentiality, and how to contact the researcher with questions) was sent to all of the parents of the high school students in the participating classrooms. These consent forms were sent home 2-4 weeks prior to the administration of the questionnaires. Parents had the opportunity to refuse their child's participation in the study by signing the bottom of the information sheet and returning it to the principal investigator, two of which were received. A contact e-mail address and phone number were provided on the consent form if the parent/guardian wanted more information about the study.

On the days of administration, participants interested in completing the questionnaires were asked to complete a behavioral assent form indicating voluntary participation in the study. The principal investigator introduced the study and read the behavioral assent form to the class to ensure their understanding of the study. It was made clear that participation is strictly voluntary, and that their choice to participate, or not, would not influence their grade in the class. Participants were reminded that all information is confidential and informed not to write their name anywhere on the questionnaires.

Interested students, whose parents did not decline their participation, were asked to complete the demographic survey and ten instruments (Character Strength, adolescent achievement orientation, parent achievement orientation, parental involvement, peer achievement orientation, teacher social support, school attachment, Academic Achievement and Risky School Behavior) during the class period. Directions were read aloud by the principal investigator and

each student was directed to complete the questionnaires honestly and independently. No students refused to participate although 4 submitted invalid questionnaires. Completion of the instruments took 15-20 minutes.

### *Statistical Analyses*

The questionnaire data will be analyzed using SPSS.

Research Hypotheses	Variables	Statistical Analyses
Research question 1: Are there specific Character Strengths that are more strongly correlated with Academic Achievement and Risky School Behaviors than others?		
H <sub>1a</sub> : There are nine specific Character Strengths that will have a relatively higher magnitude of correlation than the others with Academic Achievement: persistence, judgment, love of learning, self-regulation, prudence, fairness, hope, perspective/wisdom, and curiosity.	<u>Predictor variables</u> Individual Character Strengths (1-24) <u>Criterion variables</u> Academic Achievement	Pearson's Correlation
H <sub>1b</sub> : There are several specific Character Strengths that will have a relatively higher magnitude of correlation with low Risky School Behaviors: self-regulation, judgment, love, prudence, love of learning, and leadership.	<u>Predictor variables</u> Individual Character Strengths (1-24) <u>Criterion variables</u> Risky School Behavior	Pearson's Correlation
<p><b>**NOTE:</b> Once specific Character Strengths are identified as having relatively higher magnitude of correlation with its respective outcome measure, these strengths will be combined to form two separate indexes called Academic Achievement Character Strengths (AACS) and Risky School Behavior Character Strengths (RSBCS). These indexes will be used in the remaining research questions.</p>		

<p>Research question 2: Do the specific Character Strength indexes (AACCS) &amp; (RSBCS) explain more of the variance in their corresponding outcome measure above and beyond the other intra-personal variable of adolescent achievement orientation?</p>		
<p>H<sub>2a</sub>: The specific Character Strength index (AACCS) will explain more of the variance in Academic Achievement than adolescent achievement orientation.</p>	<p><u>Predictor variables</u></p> <p>Academic Achievement Character Strengths index (AACCS)</p> <p>Adolescent Achievement Orientation</p> <p><u>Criterion variables</u></p> <p>Academic Achievement</p>	<p>Stepwise Multiple Regression Analysis</p>
<p>H<sub>2b</sub>: The specific Character Strength index (RSBCS) will explain more of the variance in Risky School Behavior than adolescent achievement orientation.</p>	<p><u>Predictor variables</u></p> <p>Risky School Behavior Character Strengths index (RSBCS)</p> <p>Adolescent Achievement Orientation</p> <p><u>Criterion variables</u></p> <p>Risky School Behavior</p>	<p>Stepwise Multiple Regression Analysis</p>
<p>Research question 3: Do the specific Character Strength indexes (AACCS) &amp; (RSBCS) explain more of the variance in their corresponding outcome measure above and beyond the contributions of the other intrapersonal and contextual variables?</p>		
<p>H<sub>3a</sub>: The specific Character Strength index (AACCS) will explain a specific portion of the variance in Academic Achievement above and beyond the other intra-personal and context variables.</p>	<p><u>Predictor variables</u></p> <p><u>Step 1:</u></p> <p>Adolescent Achievement Orientation</p> <p>Parental Involvement</p> <p>Parental Achievement Orientation</p> <p>Peer Achievement Orientation</p> <p>Teacher Social Support</p> <p>School Attachment</p> <p><u>Step 2:</u></p> <p>Academic Achievement Character Strengths index (AACCS)</p> <p><u>Criterion variables</u></p> <p>Academic Achievement</p>	<p>Hierarchical Multiple Regression Analysis</p>
<p>H<sub>3b</sub>: The specific Character Strength index (RSBCS) will explain a specific portion of the variance in Risky School Behavior above and beyond the other intra-personal and context variables.</p>	<p><u>Predictor variables</u></p> <p><u>Step 1:</u></p> <p>Adolescent Achievement Orientation</p> <p>Parental Involvement</p> <p>Parental Achievement Orientation</p> <p>Peer Achievement Orientation</p> <p>Teacher Social Support</p> <p>School Attachment</p>	<p>Hierarchical Multiple Regression Analysis</p>

	<u>Step 2:</u> Risky School Behavior Character Strengths index (RSBCS) <u>Criterion variables</u> Risky School Behavior	
Research question 4: Do the specific Character Strength indexes (AACCS) & (RSBCS) partially mediate the relations between the combined parenting measures and the corresponding outcome measures?		
H <sub>4a</sub> : The specific Character Strength index (AACCS) will partially mediate the relations between the combined parental achievement orientation/parental involvement and Academic Achievement.	<u>Predictor variables</u> Parental Involvement Parental Achievement Orientation <u>Mediating variable</u> Academic Achievement Character Strengths index (AACCS) <u>Criterion variable</u> Academic Achievement	Two separate tests of Mediation using Baron & Kenny (1986) multiple linear regression model - one for each predictor variable.  Sobel's test of mediation
H <sub>4b</sub> : The specific Character Strength index (RSBCS) will partially mediate the relations between the combined parental achievement orientation/parental involvement and Risky School Behavior.	<u>Predictor variables</u> Parental Involvement Parental Achievement Orientation <u>Mediating variable</u> Risky School Behavior Character Strengths index (RSBCS) <u>Criterion variable</u> Risky School Behavior	Two separate tests of Mediation using Baron & Kenny (1986) multiple linear regression model - one for each predictor variable.  Sobel's test of mediation
Research question 5: Does gender moderate the relations between the specific Character Strength indexes (AACCS) & (RSBCS) and their respective outcome measures?		
H <sub>5a</sub> : Gender will moderate the relations between the specific Character Strength index (AACCS) and Academic Achievement.	<u>Predictor variables</u> Academic Achievement Character Strengths index (AACCS) <u>Moderator</u> Gender <u>Criterion variable</u> Academic Achievement	Multiple linear regression analysis
H <sub>5b</sub> : Gender will moderate the relations between the specific Character Strength index (RSBCS) and Risky School Behavior.	<u>Predictor variables</u> Risky School Behavior Character Strengths index (RSBCS) <u>Moderator</u> Gender <u>Criterion variable</u> Risky School Behavior	Multiple linear regression analysis

## CHAPTER 4 RESULTS

The purpose of this study was to examine proposed associations between Character Strengths and Academic Achievement and associations between Character Strengths and school risk behavior. These associations were compared to associations between other intrapersonal and contextual variables and those academic and behavioral outcomes. Five research questions with ten associated hypotheses were developed for the study. Each of the hypotheses was tested using inferential statistical analyses. All decisions on the statistical significance of the findings were made using a criterion alpha level of .05.

### Preliminary Analyses

During preliminary analyses, a Chi-Square Test (categorical) and ANOVA (continuous) were performed and between-group differences were found to be significant between the two samples on multiple demographic and study variables (see Table 2); therefore, all subsequent analyses were run controlling for sample. Practically speaking, sample 1 was mostly 10<sup>th</sup> (43.4%) and 11<sup>th</sup> (43.1%) graders, predominately Caucasian (66.4%) with significant Asian/Pacific Islander representation (21.3%). Most lived with “mom and dad” (83.2%) and did not receive free lunch (92.2%). Parent education for both mother and father was between “finished college” and “attended graduate or professional school.” Sample 2 was mostly 11<sup>th</sup> (47.5%) and 12<sup>th</sup> (34.8%) graders, predominately Caucasian (76.7%) with a significant African American representation (11.0%). Most lived with “mom and dad” (52.5%), but many lived with “mom-only” (19.5%) or “parent and step-parent” (14%). Forty-one point three percent received free (30.7%) or reduced (10.6%) lunch. Parent education for both mother and father was between “finished high school” and “some college” (see Table 2).

The two samples differed on predictor variables with sample 1 having significantly higher Adolescent Achievement Orientation, Parent Achievement Orientation, Peer Achievement Orientation, and School Attachment ( $p < .001$ ). Samples differed on 12 of the 24 Character Strengths, with sample 1 endorsing Forgiveness, Leadership, Love of Learning, Persistence, Perspective/wisdom, Prudence, Self-regulation, Spirituality, and Teamwork/Citizenship significantly higher and sample 2 endorsing Bravery, Creativity, and Integrity/Truth significantly higher. Regarding the dependent variables, sample 1 had significantly higher achievement ( $p < .001$ ) and significantly less Risky School Behavior tardy ( $p < .05$ ) and absence ( $p < .001$ ; see Table 2).

**Research question 1: Are there individual Character Strengths that are more strongly correlated with Academic Achievement and Risky School Behaviors than others?**

**H1a: There are nine individual Character Strengths that will have a relatively higher magnitude of correlation than the others with Academic Achievement:**

**Persistence, Judgment, Love of Learning, Self-regulation, Prudence, Fairness, Hope, Perspective/wisdom, and Curiosity.**

The Character Strengths of Persistence ( $r = .41$ ,  $p < .01$ ), Prudence ( $r = .22$ ,  $p < .01$ ), Love of Learning ( $r = .19$ ,  $p < .01$ ), Judgment ( $r = .17$ ,  $p < .01$ ), Curiosity ( $r = .14$ ,  $p < .01$ ), and Perspective/wisdom ( $r = .14$ ,  $p < .01$ ), were significantly, positively correlated with Academic Achievement; however, the Character Strengths of Self-regulation, Hope, and Fairness were not found to have a significant correlation with Academic Achievement. Additionally, the Character Strengths of Leadership ( $r = .21$ ,  $p < .01$ ), Citizenship/Teamwork ( $r = .13$ ,  $p < .01$ ), Integrity/Truth ( $r = .11$ ,  $p < .05$ ), Social Intelligence ( $r = .11$ ,  $p < .05$ ), and Love ( $r = .09$ ,  $p < .05$ ), were significantly, positively correlated with Academic Achievement (see Table 3).



Table 2

*Demographic Characteristics by Sample*

	Sample 1		Sample 2	
	n	%	n	%
<u>Gender</u>				
Male	114	40.0%	95	43.6%
Female	171	60.0%	123	56.4%
<u>Grade***</u>				
9th	1	0.3%	24	10.9%
10th	125	43.4%	15	6.8%
11th	124	43.1%	105	47.5%
12th	38	13.2%	77	34.8%
<u>Race/Ethnicity***</u>				
African American	5	1.7%	24	11.0%
Asian/Pacific Islander	61	21.3%	1	0.5%
Caucasian	190	66.4%	168	76.7%
Hispanic	7	2.4%	6	2.7%
Middle Eastern	12	4.2%	4	1.8%
other	8	2.8%	8	3.7%
indicated >1 response (Caucasian and other race)	3	1.0%	8	3.7%
<u>Lunch Status***</u>				
free lunch	6	2.1%	67	30.7%
reduced lunch	4	1.4%	23	10.6%
I do not	261	92.2%	120	55.0%
I am unsure	12	4.2%	8	3.7%
<u>Live with***</u>				
mom and dad	238	83.2%	116	52.5%
parent and step-parent	16	5.6%	31	14.0%
Mon only	15	5.2%	43	19.5%
Dad only	2	0.7%	10	4.5%
Mom and dad plus grandparent or other adult	15	5.2%	6	2.7%
Grandparent or other adult (w/o mom or dad)	0	0.0%	8	3.6%
Parent plus grandparent or other adult	0	0.0%	7	3.2%
	Mean	SD	Mean	SD
<u>Demographic Variable</u>				
Age*	16.04	0.866	16.22	0.971
Mother's Education***	6.17	0.901	4.89	1.106
Father's Education***	6.37	0.886	4.48	1.099

*Mean and Standard Deviation for Study Variables; ANOVA results by school*

<u>Predictor Variable</u>	Sample 1		Sample 2	
	Mean	SD	Mean	SD
Adolescent Achievement Orientation***	4.58	0.420	4.42	0.622
Parent Achievement Orientation***	4.70	0.411	4.53	0.609
Parent Involvement	3.57	0.596	3.47	0.681
Peer Achievement Orientation***	4.15	0.643	3.87	0.735
Teacher Social Support	3.99	0.081	3.97	0.949
School Attachment***	3.65	0.607	3.32	0.704
<u>Character Strength</u>				
Appreciation of Beauty	3.76	0.885	3.78	0.935
Bravery*	3.58	0.773	3.75	0.794
Creativity*	3.50	0.882	3.68	0.895
Curiosity	3.75	0.790	3.70	0.862
Fairness	3.34	0.775	3.42	0.909
Forgiveness*	3.70	0.863	3.52	1.038
Gratitude	4.02	0.748	4.08	0.846
Hope	3.68	0.845	3.75	0.926
Humor	4.08	0.860	4.20	0.897
Integrity/Truth**	3.21	0.848	3.48	0.903
Judgement	3.60	0.846	3.48	0.869
Kindness	3.85	0.727	3.86	0.828
Leadership**	3.65	0.915	3.37	1.063
Love	3.68	0.878	3.70	0.954
Love of Learning**	3.45	0.869	3.22	0.953
Modesty	3.57	0.700	3.53	0.800
Persistence***	3.92	0.789	3.67	0.894
Perspective/Wisdom*	3.71	0.724	3.58	0.789
Prudence*	3.50	0.812	3.30	0.917
Self-regulation**	3.21	0.898	2.98	0.999
Social Intelligence	4.04	0.626	3.96	0.725
Spirituality*	2.92	1.305	2.66	1.329
Teamwork/Citizenship*	4.02	0.585	3.88	0.805
Zest	3.61	0.903	3.56	0.978
<u>Dependent Variable</u>				
Academic Achievement***	1.70	0.828	2.82	1.575
Risky School Behavior-tardy*	3.12	1.111	3.34	1.216
Risky School Behavior-absence***	2.27	0.637	2.90	0.939

Note: n=288 sample 1; n=221 sample2

Note: ANOVA results by school \*=p<.05, \*\*=p<.01, \*\*\*=p<.001 for sample mean difference

Note: Chi-Square \*\*\*=p<.001 for relationship between categorical variable and sample

Table 3

*Pearson Correlations of Character Strengths with Academic Achievement*

<u>Character Strengths</u>	r
Persistence (H)	-.41**
Prudence (H)	-.22**
Leadership	-.21**
Love of Learning (H)	-.19**
Judgement (H)	-.17**
Curiosity (H)	-.14**
Perspective/Wisdom (H)	-.14**
Citizenship/Teamwork	-.13**
Integrity/Truth	-.11*
Social Intelligence	-.11*
Love	-.09*
Gratitude	-.09
Self-Regulation (H)	-.08
Spirituality	-.07
Kindness	-.06
Modesty	-.06
Appreciation of Beauty	-.03
Hope (H)	-.02
Bravery	-.01
Forgiveness	-.01
Fairness (H)	.00
Humor	.02
Creativity	.05
Zest	.05

Note: n=433 using list wise deletion for all correlations involving Academic Achievement.

(H) indicates character strength originally hypothesized to have significant correlation

\*p<.05 \*\*p<.01

The character strengths with significant correlations are combined into the Academic Achievement Character Strength Index (AACS) for further analysis.

**H1b: There are several individual Character Strengths that will have a relatively higher magnitude of correlation with low Risky School Behaviors: Self-regulation, Judgement, love, Prudence, Love of Learning, and leadership.** Hypotheses were originally developed for Risky School Behavior (RSB) as a unitary scale that included being tardy to class, unexcused absences, office discipline referrals and suspensions; however, as discussed in chapter

3, preliminary reliability analysis revealed concerns with RSB as a unitary scale and a lack of variance on discipline items. Two components of RSB will be used as two separate dependent variables for all hypothesis testing, RSB-tardy and RSB-absence.

Regarding RSB-tardy, the Character Strengths of Prudence ( $r=-.23$ ,  $p<.01$ ), Love of Learning ( $r=-.16$ ,  $p<.01$ ), Self-regulation ( $r=-.13$ ,  $p<.01$ ), and Judgement ( $r=-.12$ ,  $p<.05$ ) were significantly, negatively correlated with RSB-tardy; that is, when scores on these Character Strengths were high, RSB-tardy scores were low. The Character Strengths of Leadership and Love were not found to have a significant correlation with RSB-tardy. Additionally, the Character Strengths of Persistence ( $r=-.16$ ,  $p<.01$ ), Citizenship/Teamwork ( $r=-.12$ ,  $p<.01$ ), Integrity/Truth ( $r=-.11$ ,  $p<.05$ ), Fairness ( $r=-.11$ ,  $p<.05$ ), Curiosity ( $r=-.10$ ,  $p<.05$ ), and Perspective/wisdom ( $r=-.10$ ,  $p<.05$ ) were significantly, negatively correlated with the RSB-tardy but were not expected (See Table 4).

Regarding RSB-absence, the Character Strengths of Prudence ( $r=-.22$ ,  $p<.01$ ), Love of Learning ( $r=-.22$ ,  $p<.01$ ) and Leadership ( $r=-.13$ ,  $p<.01$ ) were significantly, negatively correlated with RSB-absence; that is, when scores on these Character Strengths were high, RSB-absence scores were low. The Character Strengths of Judgement, Love, and Self-regulation were not found to have a significant correlation to RSB-absence. Additionally, the Character Strengths of Persistence ( $r=-.19$ ,  $p<.01$ ), Citizenship/Teamwork, ( $r=-.15$ ,  $p<.01$ ), Curiosity, ( $r=-.14$ ,  $p<.01$ ), Hope, ( $r=-.13$ ,  $p<.01$ ), Social Intelligence ( $r=-.10$ ,  $p<.05$ ), Gratitude, ( $r=-.10$ ,  $p<.05$ ), and Zest ( $r=-.10$ ,  $p<.05$ ), were significantly, negatively correlated with the RSB-absence, but were not expected (see Table 4).

Table 4

*Pearson Correlations of Character Strengths with Risky School Behavior*

<i>tardy (RSB-tardy)</i>		<i>absence (RSB-absence)</i>	
<u>Character Strength</u>	r	<u>Character Strength</u>	r
Prudence (H)	-.23**	Prudence (H)	-.22**
Persistence	-.16**	Love of Learning (H)	-.21**
Love of Learning (H)	-.16**	Persistence	-.19**
Self-Regulation (H)	-.13**	Citizenship/Teamwork	-.15**
Citizenship/Teamwork	-.12**	Curiosity	-.14**
Judgement (H)	-.12*	Leadership (H)	-.13**
Integrity/Truth	-.11*	Hope	-.13**
Fairness	-.11*	Social Intelligence	-.10*
Curiosity	-.10*	Gratitude	-.10*
Perspective/Wisdom	-.10*	Zest	-.10*
Hope	-.09	Judgement (H)	-.09
Kindness	-.08	Love (H)	-.09
Appreciation of Beauty	-.07	Integrity/Truth	-.08
Leadership (H)	-.06	Appreciation of Beauty	-.08
Social Intelligence	-.06	Bravery	-.08
Modesty	-.06	Perspective/Wisdom	-.07
Bravery	-.06	Creativity	-.06
Forgiveness	-.06	Fairness	-.05
Gratitude	-.05	Kindness	-.04
Creativity	-.04	Self-Regulation (H)	-.03
Spirituality	-.02	Spirituality	-.03
Love (H)	.02	Modesty	-.03
Zest	.03	Forgiveness	-.03
Humor	.09	Humor	-.02

Note: n=433 using list wise deletion for all correlations involving Risky School Behavior

(H) indicates character strength originally hypothesized to have significant correlation

\*p<.05 \*\*p<.01

The character strengths with significant correlations with RSB-tardy are combined into the Risky School Behavior-tardy Character Strength Index (RSBtCS) for further analysis.

The character strengths with significant correlations with RSB-absence are combined into the Risky School Behavior-absence Character Strength Index (RSBaCS) for further analysis.

### Creation of Character Strength Indexes for analysis

As originally proposed, following the correlational analysis that identified individual Character Strengths as having significant correlations with the respective outcome measures, three Character Strength indexes were created to capture those individual Character Strengths, named for their respective outcome measure, Academic Achievement Character Strength index (AACCS), RSB-tardy Character Strength index (RSBtCS), and RSB-absence Character Strength index (RSBaCS). These indexes were used for all subsequent analysis with their respective samples. See Table 5 for a summary of Character Strength indexes and their component Character Strengths.

Table 5

#### *Character Strength Index Summary*

	Significant ( $p < .05$ ) Character Strengths	
Academic Achievement Character Strength index (AACCS)	Persistence (H) Prudence (H) Leadership Love of Learning (H) Judgement (H) Curiosity (H)	Perspective/Wisdom (H) Citizenship/Teamwork Integrity/Truth Social Intelligence Love
Risky School Behavior-tardy Character Strength index (RSBtCS)	Prudence (H) Persistence Love of Learning (H) Self-Regulation (H) Citizenship/Teamwork	Judgement (H) Integrity/Truth Fairness Curiosity Perspective/Wisdom
Risky School Behavior-absence Character Strength index (RSBaCS)	Prudence (H) Love of Learning (H) Persistence Citizenship/Teamwork Curiosity	Leadership (H) Hope Social Intelligence Gratitude Zest

Note: character strengths listed have significant correlations with outcome measure at  $p < .05$

**Research question 2: Do the individual Character Strength indexes (AACS) & (RSBCS) explain more of the variance in their corresponding outcome measure above and beyond the other intra-personal variable of Adolescent Achievement Orientation?**

**H2a: The individual Character Strength index (AACS) will explain more of the variance in Academic Achievement than Adolescent Achievement Orientation.** To determine the relative contribution of Character Strengths in predicting Academic Achievement, a hierarchical multiple regression analysis was performed using Adolescent Achievement Orientation in step 1 to control for its known relation with Academic Achievement and Academic Achievement Character Strengths index (AACS) in step 2. Adolescent Achievement Orientation was significant in predicting Academic Achievement; however, the  $R^2$  change and F change was not significant when AACS was added to the model and therefore, AACS does not contribute in predicting Academic Achievement above and beyond Adolescent Achievement Orientation (see Table 6).

Table 6

*Character Strength predicting Academic Achievement beyond other intra-personal variable*

Variable	Model 1					Model 2				
	B	SE B	Beta	T	Sig.	B	SE B	Beta	T	Sig.
Adolescent Achievement Orientation**	-1.094	.093	-.436	-11.816	.000	-1.090	.112	-.435	-9.753	.000
Academic Achievement Character Strengths Index (AACS)						-.006	.106	-.003	-.061	.952

Note: Model 2,  $R^2$  change, F change not significant

**H2b: The Character Strength index (RSBCS) will explain more of the variance in Risky School Behavior than Adolescent Achievement Orientation.** To determine the relative contribution of Character Strengths in predicting Risky School Behavior-tardy, a hierarchical,

multiple regression analysis was performed using Adolescent Achievement Orientation in step 1 to control for its known relation with RSB-tardy and RSB-tardy Character Strengths index (RSBtCS) in step 2. RSBtCS was found to be significant, predicting Risky School Behavior-tardy above and beyond Adolescent Achievement Orientation ( $R^2$  change .016, F change 8.065;  $p < .01$ ). For model one, Adolescent Achievement Orientation was significant; however, when RSBtCS was added to the model, Adolescent Achievement Orientation was no longer significant (see Table 7).

To determine the relative contribution of Character Strengths in predicting Risky School Behavior-absence, a stepwise multiple regression analysis was repeated using RSB-absence Character Strengths index (RSBaCS) in step 2. RSBaCS was found to be significant, predicting Risky School Behavior-tardy above and beyond Adolescent Achievement Orientation ( $R^2$  change .009, F change 5.167;  $p < .05$ ). For model one, Adolescent Achievement Orientation was significant; however, when RSBaCS was added to the model, the contribution of Adolescent Achievement Orientation was reduced, but still significant (see Table 7).

**Research question 3: Do the Character Strength indexes (AACCS) & (RSBCS) explain more of the variance in their corresponding outcome measure above and beyond the contributions of the other intrapersonal variable and contextual variables?**

**H3a: The individual Character Strength index (AACCS) will explain a specific portion of the variance in Academic Achievement above and beyond the other intrapersonal and contextual variables.** To determine the relative contribution of Character Strengths in predicting Academic Achievement, a hierarchical multiple regression analysis was performed using Adolescent Achievement Orientation and 5 contextual variables in step 1, Parent Achievement Orientation, Parent Involvement, Peer Achievement Orientation, Teacher Social Support, and



Table 7

*Character Strength predicting Risky School Behavior beyond other intra-personal variable*

Variable	Model 1					Model 2				
	B	SE B	Beta	T	Sig.	B	SE B	Beta	T	Sig.
<u>RSB-tardy</u>										
Adolescent Achievement Orientation	-.300	.104	-.132	-2.875	.004	-.139	.118	-.061	-1.183	.237
Risky School Behavior-tardy Character Strengths Index (RSBtCS)**						-.312	.110	-.146	-2.840	.005

Note: Model 1, R<sup>2</sup> .023\*\*, F change 5.500\*\*; Model 2, R<sup>2</sup> change .016\*\*, F change 8.065\*\*

RSB-absence

Adolescent Achievement Orientation*	-.309	.069	-.191	-4.497	.000	-.200	.084	-.123	-2.384	.018
Risky School Behavior-absence Character Strengths Index (RSBaCS)*						-.176	.077	-.117	-2.273	.023

Note: Model 1, R<sup>2</sup> .172\*\* F change 48.671\*\*; Model 2 R<sup>2</sup> change .009\*, F change 5.167\*

Note: \*p<.05 \*\*p<.01

School Attachment, to control for their possible relation with Academic Achievement and Academic Achievement Character Strengths index (AACS) in step 2. Of the variables, Adolescent Achievement Orientation, Peer Achievement Orientation, and Teacher Social Support were predictive of Academic Achievement in step 1; however, the R<sup>2</sup> change and F change was not significant when AACS was added to the model, and therefore, AACS does not contribute in predicting Academic Achievement beyond the intrapersonal and contextual variables (see Table 8).

Table 8

*Character Strength predicting Academic Achievement beyond contextual variables*

Variable	Model 1					Model 2				
	B	SE B	Beta	T	Sig.	B	SE B	Beta	T	Sig.
Adolescent Achievement Orientation**	-.950	.116	-.381	-8.214	.000	-.971	.125	-.389	-7.752	.000
Parent Achievement Orientation	-.077	.119	-.030	-.646	.518	-.074	.120	-.029	-.617	.537
Parent Involvement	.027	.091	.013	.296	.767	.023	.091	.012	.253	.800
Peer Achievement Orientation*	.150	.076	.083	1.989	.047	.145	.077	.080	1.896	.059
Teacher Social Support**	-.174	.066	-.118	-2.636	.009	-.177	.067	-.120	-2.664	.008
School Attachment	-.101	.092	-.052	-1.098	.273	-.110	.094	-.057	-1.164	.245
Character Strengths Index (AACCS)						.049	.115	.021	.427	.669

Note: Model 1,  $R^2$  .377\*\* F change 38.645\*\*; Model 2, change not significant

Note: \* $p < .05$  \*\* $p < .01$

**H3b: The Character Strength index (RSBCS) will explain a specific portion of the variance in Risky School Behavior above and beyond the other intrapersonal and contextual variables.** To determine the relative contribution of Character Strengths in predicting Risky School Behavior-tardy, a hierarchical multiple regression analysis was performed using Adolescent Achievement Orientation and 5 contextual variables in step 1, Parent Achievement Orientation, Parent Involvement, Peer Achievement Orientation, Teacher Social Support, and School Attachment, to control for their potential relation with Risky School Behavior-tardy, and RSB-tardy Character Strengths index (RSBtCS) in step 2. RSBtCS was found to be significant, predicting Risky School Behavior-tardy above and beyond the variables ( $R^2$  change .012, F change 5.967;  $p < .05$ ). For model one, only two contextual variables were significant, teacher social support and Peer Achievement Orientation; however, when RSBtCS was added to the model, Peer Achievement Orientation was no longer significant (see Table 9).

To determine the relative contribution of Character Strengths in predicting Risky School Behavior-absence, the hierarchical multiple regression analysis was repeated using RSB-absence

Character Strengths index (RSBaCS) in step 2. Of the contextual variables, Teacher Social Support and School attachment were predictive of RSB-absence behavior in step 1; however, the  $R^2$  change and F change was not significant when RSBaCS was added to the model (see Table 9).

**Research question 4: Do the Character Strength indexes (AACCS) & (RSBACS) partially mediate the relations between the combined parenting measures and their corresponding outcome measures?**

**H4a: The Character Strength index (AACCS) will partially mediate the relations between the combined parental achievement orientation / parental involvement and Academic Achievement.** Parent Achievement Orientation and Parent Involvement were combined to form a Parent Influence variable that was used to test for possible mediation. Using the Baron & Kenny (1986) multiple linear regression model, Parent Influence was regressed on Academic Achievement Character Strength Index (AACCS), ( $B=.338$ ) Beta = .316,  $t(474) = 7.212$  which was significant ( $p<.01$ ). The second model regressed Parent Influence and AACCS on Academic Achievement; both were significant ( $p<.01$ ). Using Sobel test of mediation, AACCS was found to be significant in mediating the effects of Parent Influence on Academic Achievement; Sobels  $T = -3.96$  ( $p<.01$ ) for partial mediation (see Table 10).

Table 9

*Character Strength predicting Risky School Behavior beyond contextual variables*

Variable	Model 1					Model 2				
	B	SE B	Beta	T	Sig.	B	SE B	Beta	T	Sig.
<u>RSB-tardy</u>										
Adolescent Achievement Oreintation	-.150	.129	-.066	-1.160	.247	-.045	.135	-.020	-.330	.741
Parent Achievement Orientation	-.064	.133	-.028	-.484	.628	-.090	.132	-.039	-.680	.497
Parent Involvement	-.028	.101	-.015	-.278	.781	-.015	.101	-.008	-.145	.884
Peer Achievement Oreintation*	-.185	.084	-.112	-2.197	.029	-.157	.085	-.095	-1.856	.064
Teacher Social Support*	-.168	.074	-.125	-2.255	.025	-.150	.074	-.111	-2.012	.045
School Attachment	.119	.104	.068	1.152	.250	.166	.105	.095	1.585	.114
Risky School Behavior-tardy Character Strengths Index (RSBtCS)						-.286	.117	-.135	-2.443	.015

Note: model 1 R<sup>2</sup> change .048\*\*, F change 3.211\*\*; model 2 R<sup>2</sup> change .012\*, F change 5.967\*

RSB-absence

Adolescent Achievement Oreintation	-.082	.085	-.051	-.971	.332	-.060	.092	-.037	-.649	.516
Parent Achievement Orientation	-.145	.090	-.085	-1.613	.107	-.149	.090	-.087	-1.647	.100
Parent Involvement	-.063	.067	-.047	-.947	.344	-.058	.067	-.044	-.866	.387
Peer Achievement Oreintation	-.016	.056	-.014	-.295	.768	-.009	.057	-.008	-.167	.867
Teacher Social Support**	-.128	.049	-.132	-2.636	.009	-.126	.049	-.130	-2.587	.010
School Attachment*	-.133	.067	-.105	-1.971	.049	-.121	.070	-.096	-1.736	.083
Risky School Behavior-absence Character Strengths Index (RSBaCS)*						-.053	.085	-.035	-.625	.533

Note: model 1 R<sup>2</sup> 0.222\*\* F change 18.177\*\*; model 2 not significant

Note: \*p<.05 \*\*p<.01

**H4b: The Character Strength index (RSBCS) will partially mediate the relations between the combined parental achievement orientation / parental involvement and Risky School Behavior.** Using the Baron & Kenny (1986) multiple linear regression model, Parent Influence was regressed on Risky School Behavior–tardy Character Strength Index (RSBtCS), (B=.259) Beta = .240, t (470) = 5.347, which was significant (p<.01). The second model regressed Parent Influence and RSBtCS on RSB-tardy behavior. RSBtCS was significant (B=-.342) Beta -.161, t (470) = -3.452 (p<.01); however, Parent Influence was no longer significant (B=-.165) Beta

= -.072,  $t(470) = -1.537$ , demonstrating full mediation. Using the Sobel test of mediation, RSBtCS was found to be significant in mediating the effects of Parent Influence on RSB-tardy behavior; Sobels  $T = -2.910$  ( $p < .01$ ) for mediation (see Table 10).

Using the Baron & Kenny (1986) multiple linear regression model, Parent Influence was regressed on Risky School Behavior-absence Character Strength Index (RSBaCS), ( $B = .399$ ) Beta = .354,  $t(464) = 8.134$  which was significant ( $p < .01$ ). The second model regressed Parent Influence and RSBaCS on RSB-absence behavior; both were significant ( $p < .01$ ). Using Sobels test for mediation, RSBaCS was found to be significant in mediating the effects of Parent Influence on RSB-absence behavior; Sobels  $T = -2.850$  ( $p < .01$ ) for partial mediation (see Table 10).

Table 10

*Character Strengths Significant for Mediation of Parent Influence*

Variable	Model 1 on AACS					Model 2 on AcAch				
	B	SE B	Beta	T	Sig.	B	SE B	Beta	T	Sig.
Parent Influence	.338	.047	.316	7.212	.000	-.403	.107	-.159	-3.762	.000
Academic Achievement Character Strengths (AACS)						-.474	.100	-.200	-4.746	.000

Note: AACS\*\* Index significant for partial mediation (Sobels  $T = -3.96$ , Std Err 0.04)

Variable	Model 1 on RSBtCS					Model 2 on RSB-tardy				
	B	SE B	Beta	T	Sig.	B	SE B	Beta	T	Sig.
Parent Influence	.259	.048	.240	5.347	.000	-.165	.108	-.072	-1.537	.125
Risky School Behavior-tardy Character Strengths (RSBtCS)						-.342	.099	-.161	-3.452	.001

Note: RSBtCS demonstrates full mediation

Note: RSBtCS\*\* index significant for partial mediation (Sobels  $T = -2.910$ , Std Err 0.030)

Variable	Model 1 on RSBaCS					Model 2 on RSB-absence				
	B	SE B	Beta	T	Sig.	B	SE B	Beta	T	Sig.
Parent Influence	.399	.049	.354	8.134	.000	-.263	.076	-.156	-3.462	.001
Risky School Behavior-absence Character Strengths (RSBaCS)						-.204	.067	-.137	-3.042	.002

Note: RSBaCS\*\* index significant for partial mediation (Sobels  $T = -2.850$ , Std Err 0.029)

Note: \* $p < .05$  \*\* $p < .01$

**Research question 5: Does gender moderate the relations between the Character Strength indexes (AACCS) & (RSBCS) and their corresponding outcome measures?**

**H5a: Gender will moderate the relations between the Character Strength index (AACCS) and Academic Achievement.** To test for moderation, multiple linear regression analysis was completed using Academic Achievement Character Strengths (AACCS) as the predictor variable, gender as the moderator, and Academic Achievement as the criterion variable. AACCS was significant in predicting Academic Achievement, but the moderator variable (AACCSxgender) was not significant.

**H5b: Gender will moderate the relations between the Character Strength index (RSBCS) and Risky School Behavior.** To test for moderation, multiple linear regression analysis was completed using RSBtCS as the predictor variable, gender as the moderator, and Risky School Behavior-tardy as the criterion variable. RSBtCS was significant in predicting Risky School Behavior-tardy, but the moderator variable (RSBtCSxgender) was not significant. Repeating the regression analysis using RSBaCS, RSBaCSxgender, and Risky School Behavior-absence found that RSBaCS was significant in prediction Risky School Behavior-absence, but the moderator variable (RSBaCSxgender) was not significant.

**A Posteriori Analysis of Individual Character Strengths**

Following hypothesis testing using the Character Strength indexes (AACCS, RSBtCS, RSBaCS), further analysis was performed using the individual Character Strengths that were used to create the indexes. Regression analysis was completed for each research question, using the individual Character Strengths and the intrapersonal and/or contextual variables.

Regarding predicting Academic Achievement, regression analysis determined that the individual Character Strengths of Persistence and integrity/truth predicted Academic Achievement

above and beyond Adolescent Achievement Orientation (RQ2). In addition to the portion of unique variance by Adolescent Achievement Orientation (partial -.296), Persistence contributed (partial -.190) to the predictive model and integrity/truth contributed (partial -.111) to the model. When the individual Character Strengths were considered along with the 5 contextual variables (RQ3), regression analysis determined that the individual Character Strength of Persistence predicted Academic Achievement above and beyond the other contextual variables. Partial correlations for significant variables in the model included Adolescent Achievement Orientation (partial=-.222), Persistence (partial=-.201), Teacher Social Support (partial = -.106) and School Attachment (partial = -.092) with the total model accounting for 39.2% of variance in Academic Achievement (see Table 11).

Table 11

*Individual Character Strengths predicting academic achievement*

Variable	Model 1					Model 2					
	B	SE B	Beta	T	Sig.	B	SE B	Beta	T	Sig.	Parital
Adolescent Achievement Orientation**	-1.036	.091	-.419	-11.340	.000	-.797	.116	-.322	-6.849	.000	-.296
Persistence**						-.312	.073	-.205	-4.273	.000	-.190
Integrity/Truth*						.143	.058	.097	2.464	.014	.111

Note: Model 1 R<sup>2</sup> change .350\*\*, F Change 131.732\*\*; Model 2 R<sup>2</sup> change .026\*\*, F change 10.249\*\*

Adolescent Achievement Orientation**	-.909	.115	-.367	-7.930	.000	-.658	.135	-.266	-4.857	.000	-.222
Parent Achievement Orientation	.000	.118	.000	-.003	.998	-.068	.118	-.027	-.574	.566	-.027
Parent Involvement	.025	.091	.012	.276	.782	.059	.090	.029	.657	.511	.031
Peer Achievement Orientation	.122	.075	.067	1.623	.105	.107	.074	.059	1.444	.149	.067
Teacher Social Support*	-.150	.066	-.101	-2.264	.024	-.148	.065	-.099	-2.274	.023	-.106
School Attachment*	-.140	.091	-.073	-1.538	.125	-.182	.092	-.095	-1.986	.048	-.092
Persistence**						-.329	.075	-.218	-4.384	.000	-.201
Integrity						.117	.062	.080	1.889	.059	.088
Social Intelligence						.149	.081	.079	1.842	.066	.086

Note: Model 1, R<sup>2</sup> .361\*\* F change 37.162\*\*; Model 2, R<sup>2</sup> .031\*\* F change 7.853\*\*

Note: \*p<.05 \*\*p<.01

Regarding predicting Risky School Behavior-tardy, regression analysis determined that the individual Character Strength of Prudence predicted Risky School Behavior-tardy above and beyond Adolescent Achievement Orientation (RQ2). In addition to the portion of unique variance by Adolescent Achievement Orientation (partial  $-.075$ ), Prudence contributed (partial  $-.157$ ) to the predictive model. When the individual Character Strengths were considered along with the 5 contextual variables (RQ3), regression analysis determined that the individual Character Strength of Prudence predicted Risky School Behavior-tardy above and beyond the other contextual variables. Partial correlations for significant variables in the model included Prudence (partial  $-.157$ ) and Peer Achievement Orientation (partial  $-.095$ ) with the total model accounting for 7.7% of variance in Risky School Behavior-tardy (see Table 12).

Regarding predicting Risky School Behavior-absence, regression analysis determined that the individual Character Strengths of Prudence and Love of Learning predicted Risky School Behavior-absence above and beyond Adolescent Achievement Orientation (RQ2). In addition to the portion of unique variance by Adolescent Achievement Orientation (partial  $-.105$ ), Prudence (partial  $-.117$ ) and Love of Learning (partial  $-.094$ ) contributed to the predictive model. When the individual Character Strengths were considered along with the 5 other contextual variables (RQ3), regression analysis determined that the individual Character Strength of Prudence predicted Risky School Behavior-absence above and beyond the other contextual variables. Partial correlations for significant variables in the model included Prudence (partial  $-.112$ ) and Teacher Social Support (partial  $-.096$ ) with the total model accounting for 24.3% of variance in Risky School Behavior-absence (see Table 12).



Table 12

*Individual Character Strength predicting RSB*

Variable	Model 1					Model 2					
	B	SE B	Beta	T	Sig.	B	SE B	Beta	T	Sig.	Parital
<b>RSB-tardy</b>											
Adolescent Achievement Oreintation	-.313	.100	-.140	-3.127	.002	-.177	.106	-.079	-1.666	.096	-.075
Prudence**						-.225	.063	-.167	-3.548	.000	-.157

Note: Model 1 R<sup>2</sup>change .028\*\*, F change 7.058\*\*; Model 2 R<sup>2</sup> change .024\*\*, F change 12.585\*\*

Adolescent Achievement Oreintation	-.168	.124	-.075	-1.353	.177	-.058	.127	-.026	-.453	.651	-.021
Parent Achievement Orientation	-.061	.130	-.026	-.468	.640	-.108	.129	-.047	-.835	.404	-.038
Parent Involvement	-.009	.100	-.005	-.093	.926	.002	.099	.001	.016	.987	.001
Peer Achievement Oreintation*	-.197	.083	-.119	-2.393	.017	-.169	.082	-.102	-2.062	.040	-.095
Teacher Social Support*	-.152	.073	-.112	-2.100	.036	-.130	.072	-.096	-1.799	.073	-.083
School Attachment	.063	.099	.036	.637	.524	.086	.098	.050	.878	.381	.040
Prudence**						-.226	.066	-.168	-3.444	.001	-.157

Note: model 1 R<sup>2</sup> change .054\*\*, F change 3.840\*\*; model 2 R<sup>2</sup> change .023\*\*, F change 11.862\*\*

Variable	Model 1					Model 2					
	B	SE B	Beta	T	Sig.	B	SE B	Beta	T	Sig.	Parital
<b>RSB-absence</b>											
Adolescent Achievement Oreintation*	-.303	.067	-.187	-4.501	.000	-.173	.074	-.107	-2.337	.020	-.105
Prudence**						-.117	.045	-.119	-2.612	.009	-.117
Love of Learning*						-.089	.042	-.096	-2.101	.036	-.094

Note: Model 1 R<sup>2</sup>change .174\*\*, F change 51.957\*\*; Model 2 R<sup>2</sup> change .025\*\*, F change 7.755\*\*

Adolescent Achievement Oreintation	-.117	.082	-.072	-1.421	.156	-.027	.086	-.017	-.314	.753	-.015
Parent Achievement Orientation	-.119	.086	-.071	-1.387	.166	-.151	.086	-.090	-1.767	.078	-.082
Parent Involvement	-.067	.066	-.050	-1.005	.315	-.060	.066	-.045	-.915	.361	-.042
Peer Achievement Oreintation	-.035	.055	-.029	-.643	.520	-.018	.055	-.014	-.323	.747	-.015
Teacher Social Support*	-.113	.048	-.115	-2.354	.019	-.099	.048	-.100	-2.070	.039	-.096

School Attachment*	-.130	.066	-.102	-1.976	.049	-.099	.066	-.078	-1.493	.136	-.069
Prudence*						-.111	.045	-.112	-2.433	.015	-.112
Love of Learning						-.071	.043	-.076	-1.640	.102	-.076

Note: model 1  $R^2$  .224\*\* F change 19.248\*\*; model 2  $R^2$  .019\*\* F change 5.679\*\*

Note: \* $p < .05$  \*\* $p < .01$

Individual Character Strengths did not mediate the Parent Influence variable in predicting Academic Achievement. Using the Baron & Kenny (1986) multiple linear regression model, Prudence was significant for full mediation of Parent Influence in predicting RSB-tardy. Prudence (Sobel  $T = -2.665$ ;  $p < .01$ ) and Love of Learning (Sobel  $T = -2.666$ ;  $p < .01$ ) were significant for partial mediation of Parent Influence in predicting RSB-absence (see Table 13).

Table 13

*Individual Character Strengths Significant for Mediation of Parent Influence*

Variable	Model 1 on Prudence					Model 2 on RSB-tardy				
	B	SE B	Beta	T	Sig.	B	SE B	Beta	T	Sig.
Parent Influence	.261	.076	.153	3.429	.001	-.175	.103	-.076	-1.700	.090
Prudence						-.254	.060	-.189	-4.240	.000

Note: Prudence significant for full mediation

Note: Prudence\*\* significant for partial mediation (Sobel's  $T = -2.667$ , Std Err 0.025)

Variable	Model 1 on Prudence					Model 2 on RSB-absence				
	B	SE B	Beta	T	Sig.	B	SE B	Beta	T	Sig.
Parent Influence	.261	.076	.153	3.429	.001	-.263	.069	-.157	-3.823	.000
Prudence						-.169	.040	-.173	-4.206	.000

Note: Prudence\*\* significant for partial mediation (Sobel's  $T = -2.665$ , Std Err 0.017)

Variable	Model 1 on Love of Learning					Model 2 on RSB-absence				
	B	SE B	Beta	T	Sig.	B	SE B	Beta	T	Sig.
Parent Influence	.294	.080	.163	3.666	.000	-.265	.069	-.159	-3.844	.000
Love of Learning						-.146	.038	-.158	-3.821	.000

Note: Love of Learning\*\* significant for partial mediation (Sobel's  $T = -2.666$ , Std Err 0.016)

Note: \* $p < .05$  \*\* $p < .01$

## CHAPTER 5 DISCUSSION

The purpose of this study was to examine proposed associations between Character Strengths and Academic Achievement and associations between Character Strengths and school risk behavior. These associations were compared to associations between other intrapersonal and contextual variables and those academic and behavioral outcomes. Five research questions with ten associated hypotheses were developed for the study. Each of the hypotheses was tested using inferential statistical analyses. All decisions on the statistical significance of the findings were made using a criterion alpha level of .05.

The results revealed meaningful information about the role of Character Strengths in predicting Academic Achievement in high school students. Adolescent Achievement Orientation proved to be the best predictor of Academic Achievement, found to be significant in regression models with only intrapersonal variables and with models that incorporated contextual variables as well. The Character Strength index Academic Achievement Character Strengths (AACCS), which was combination of the 11 individual Character Strengths with a significant correlation to Academic Achievement, was not significant in predicting Academic Achievement, thus rejecting hypotheses 2a and 3a. It appears that creating the Character Strength index was not an effective analysis strategy, in effect, lumping together any Character Strength that was significant in correlation to Academic Achievement may have sacrificed the strength of a few strong correlations. The a posteriori analysis revealed that of the 24 Character Strengths, 2 individual Character Strengths were significant on their own in predicting Academic Achievement, Persistence and Integrity/Truth (see Table 11).

Integrity/Truth was significant when compared with other intrapersonal variables (Adolescent Achievement Orientation and Persistence), but not when considered with the 5

contextual variables. The Character Strength of Persistence was significant in both regressions ( $p < .01$ ) and had partial correlation (-.201), second only to Adolescent Achievement Orientation (-.222) in predicting Academic Achievement. Also significant in contributing to a model that predicts Academic Achievement were the contextual variables of Teacher Social Support and School Attachment. Both of these variables were significant ( $p < .05$ ) in the regression models as well. Ultimately, results indicate that to predict which students would be highest in Academic Achievement in a similar population, it would be important to measure Adolescent Achievement Orientation, the Character Strength of Persistence, Teacher Social Support, and School Attachment.

The Character Strength index Risky School Behavior-tardy Character Strengths (RSBtCS), which was comprised of the 10 Character Strengths with significant correlations to RSB-tardy, was significant in predicting tardy school behavior (RSB-tardy) in high school students and the strongest predictor in both regressions (Tables 7 & 9) confirming hypotheses 2b and 3b. Teacher Social Support was also significant in predicting tardy school behavior. The individual Character Strength of Prudence performed similarly to RSBtCS, even better, also significant ( $p < .01$ ) and the strongest predictor of RSB-tardy in both regressions. Peer Achievement Orientation was also significant ( $p < .05$ ); however Prudence (partial=-.157) had a stronger contribution than Peer Achievement Orientation (partial=-.095) and any other variable in predicting tardy school behavior. Ultimately, results indicate that to predict which students would be lower in tardy school behavior in a similar population, it would be important to measure the individual Character Strength of Prudence and the constructs of Peer Achievement Orientation and Teacher Social Support.

The Character Strength index RSBaCS and Adolescent Achievement Orientation were significant ( $p < .05$ ) in predicting school absences (Risky School Behavior-absence) in high school students, but only when considered with intra-personal variables (hypothesis 2b). When the contextual variables were added, Teacher Social Support and School Attachment were the only 2 variables that were significant in predicting school absences (Table 9), rejecting hypothesis 3b. When RSBaCS was added to the model, School Attachment was no longer significant, but Teacher Social Support remained significant ( $p < .01$ ).

From the a posteriori analysis (Table 12), the individual Character Strength of Love of Learning was significant in predicting school absences, but only when considered with intrapersonal variables. Similar to the results in predicting school tardy behavior, the individual Character Strength of Prudence was significant and the strongest predictor of RSB-absence in both regressions. Teacher Social Support was also significant ( $p < .05$ ); however, Prudence (partial =  $-.112$ ) had a stronger contribution than Teacher Social Support (partial =  $.096$ ) and any other variable in predicting school absence behavior. Ultimately, results indicate that to predict which students would be lower in school absences in a similar population, it would be important to measure the individual Character Strength of Prudence and the construct of Teacher Social Support.

The results provided new information about the role Character Strengths play in explaining the mechanism through which Parent Achievement Orientation and Parent Involvement impact Academic Achievement and Risky School Behavior. For example, the influence of these parenting constructs on student's tardy behavior was fully mediated by the individual Character Strength of Prudence and the Character Strength index RSBtCS. Full mediation implies that it is not those parenting variables that impacts the tardy behavior directly, but the parenting impacts the

development or intensity of those Character Strengths in the index RSBtCS, especially Prudence, which in turn, impacts the student's low tardy behavior.

Other partial mediation effects that were significant were Prudence, Love of Learning, and RSBaCS partially mediating the effects of the parenting variables on school absence, confirming hypothesis 4b, and AACS partially mediating the effects of the parenting variable on Academic Achievement, confirming hypothesis 4a. While it was required to verify that the parenting variables had a significant relation with each criterion variable through a simple regression as part of the mediation analysis, it is important to note that neither of the parenting variables contributed significantly in predicting any outcome when considered along with other contextual and intrapersonal variables. Lastly, hypothesis 5a and 5b were not confirmed, as gender did not mediate any impact of the Character Strength indexes on the criterion variables.

Regarding which Character Strengths would be significantly correlated to these outcomes (RQ1), results were mixed. For example, only 6 of the hypothesized 9 Character Strengths that had been correlated with Academic Achievement in previous literature were found to have significant correlations in this sample, and Leadership had the 3<sup>rd</sup> highest correlation, significant ( $p < .01$ ), but was unexpected. Given the lack of previous research involving Risky School Behavior and Character Strengths and given the adaptations to analysis that were necessary due to reliability concerns of the RSB measure, the individual Character Strengths correlations with RSB are less surprising. It is clear, 2 of the 24 individual Character Strengths provide most of the meaningful information in predicting these valuable school outcomes and the creation of Character Strength indexes in an attempt to capture the predictive value of multiple Character Strengths was largely unnecessary, and possibly counterproductive. Persistence and Prudence were likely the

“active ingredients” that gave the indexes any predictive power when they were significant, and captured more of the variance when analyzed as their own predictor variable.

### **Limitations and Directions for Future Research**

Of course, there are certain limitations of the current study, including concerns with the sample. Participants were selected for study participation based on the teacher’s willingness to allow class time for the survey and the access granted by high school administration which was limited to certain teachers; most students were from Psychology courses and/or 11<sup>th</sup> grade students. Both restrictions may contribute to a selection bias. There may be an unintended connection between certain Character Strengths (or other predictor variables) and enrolling in a Psychology course or Academic Achievement. With the sample being centered on 11<sup>th</sup> grade students, results may not be reflective of students in other grades, especially given the amount of change and growth adolescence experience. This further exacerbates concerns mentioned later about attrition, with the possibility of students who lack Persistence or Prudence or have low Academic Achievement and high Risky School Behaviors dropping out before the 11<sup>th</sup> grade.

Another limitation of the current study is the instrument used to measure school behavior. In addition to concerns about self-report behavior data and selection bias, where students with high absenteeism may not be present to participate in the survey, future research may consider specifically sampling a sub-population of students with high RSBs and compare Character Strength predictability to randomly sampled individuals from the school population. Another approach that might be productive is to consider analyzing behavior data on “minor” infractions. Many schools that implement a Positive Behavior Interventions and Support (PBIS) framework create school discipline hierarchies with major behavior offenses resulting in office discipline referrals and subsequent administrative action and minor offences that can include penalties such

as teacher-student conference, detention, parent contact, etc. Using behavior data on “minor” infractions may provide more variability and allow analysis between characters strengths and a wider range of student problem behavior.

Although self-report is considered a valid means of collecting data and reflects the adolescent’s perceptions, additional informants, e.g., parents and teachers, could be considered for future studies. Letter grades themselves may also present a problem in this instance when integrating Academic Achievement information from two separate schools as grading standards may be relative to each population and not comparable. In addition to accessing school records for academic and behavior data, future research may consider an alternative measure of Academic Achievement, such as standardized test scores. Given the number of analyses, the possibility for Type I errors was increased as well.

In addition to addressing these limitations, further research should explore if these individual Character Strength of Persistence and Prudence are equally predictive at each grade level. Is the predictive power of Prudence on RSB stronger in the 9<sup>th</sup> grade, when the student is overall, less mature? Likewise, is Persistence the Character Strength linked to Academic Achievement in all grades, or does another Character Strength i.e., Love of Learning or Curiosity have the strongest correlation in 9<sup>th</sup> and 10<sup>th</sup> grade, but change to Persistence as the course material becomes more challenging in 11<sup>th</sup> and 12<sup>th</sup> grade?

### **Summary and Conclusions**

Despite these limitations, the current study provides evidence of the contributions of Character Strengths in predicting important outcomes in high school students such as Academic Achievement, school tardy and school absence behaviors. The Character Strength of Persistence along with other variables of Adolescent Achievement Orientation, Teacher Social Support, and



School Attachment help predict Academic Achievement. The Character Strength of Prudence was the strongest predictor of school tardy and school absence behaviors along with other variables of Peer Achievement Orientation and Teacher Social Support, respectively. Character Strengths partially, and in some instances fully, explain the mechanism through which the variables of Parent Achievement Orientation and Parent Involvement impact Academic Achievement, school tardy, and school absence behaviors. High schools could screen all student on these variables to identify students who are at risk for lower Academic Achievement and higher Risky School Behavior during the first week of school instead of waiting for students to struggle academically or develop a pattern of tardy and absent behaviors over the first semester. This screening could lead to earlier identification and intervention. Additionally, since Character Strengths can be developed and enhanced through intervention (Park & Peterson, 2012), schools could implement interventions to strengthen student Persistence and Prudence for all students and design targeted Character Strength interventions for those who are found to be at risk.

## APPENDIX A CHARACTER STRENGTHS AND VIRTUES

### Character Strengths and Virtues

1. **Wisdom and Knowledge** – Cognitive strengths that entail the acquisition and use of knowledge
  - **Creativity** [originality, ingenuity]: Thinking of novel and productive ways to conceptualize and do things; includes artistic achievement but is not limited to it
  - **Curiosity** [interest, novelty-seeking, openness to experience]: Taking an interest in ongoing experience for its own sake; finding subjects and topics fascinating; exploring and discovering
  - **Judgment** [critical thinking]: Thinking things through and examining them from all sides; not jumping to conclusions; being able to change one's mind in light of evidence; weighing all evidence fairly
  - **Love of Learning**: Mastering new skills, topics, and bodies of knowledge, whether on one's own or formally; obviously related to the strength of curiosity but goes beyond it to describe the tendency to add systematically to what one knows
  - **Perspective** [wisdom]: Being able to provide wise counsel to others; having ways of looking at the world that make sense to oneself and to other people
  
2. **Courage** – Emotional strengths that involve the exercise of will to accomplish goals in the face of opposition, external or internal
  - **Bravery** [valor]: Not shrinking from threat, challenge, difficulty, or pain; speaking up for what is right even if there is opposition; acting on convictions even if unpopular; includes physical bravery but is not limited to it
  - **Perseverance** [persistence, industriousness]: Finishing what one starts; persisting in a course of action in spite of obstacles; “getting it out the door”; taking pleasure in completing tasks
  - **Honesty** [authenticity, integrity]: Speaking the truth but more broadly presenting oneself in a genuine way and acting in a sincere way; being without pretense; taking responsibility for one's feelings and actions
  - **Zest** [vitality, enthusiasm, vigor, energy]: Approaching life with excitement and energy; not doing things halfway or halfheartedly; living life as an adventure; feeling alive and activated
  
3. **Humanity** - Interpersonal strengths that involve tending and befriending others
  - **Love**: Valuing close relations with others, in particular those in which sharing and caring are reciprocated; being close to people
  - **Kindness** [generosity, nurturance, care, compassion, altruistic love, "niceness"]: Doing favors and good deeds for others; helping them; taking care of them

- **Social Intelligence** [emotional intelligence, personal intelligence]: Being aware of the motives and feelings of other people and oneself; knowing what to do to fit into different social situations; knowing what makes other people tick

#### 4. **Justice** - Civic strengths that underlie healthy community life

- **Teamwork** [citizenship, social responsibility, loyalty]: Working well as a member of a group or team; being loyal to the group; doing one's share
- **Fairness**: Treating all people the same according to notions of fairness and justice; not letting personal feelings bias decisions about others; giving everyone a fair chance.
- **Leadership**: Encouraging a group of which one is a member to get things done, and at the same time maintaining good relations within the group; organizing group activities and seeing that they happen.

#### 5. **Temperance** – Strengths that protect against excess

- **Forgiveness**: Forgiving those who have done wrong; accepting the shortcomings of others; giving people a second chance; not being vengeful
- **Humility**: Letting one's accomplishments speak for themselves; not regarding oneself as more special than one is
- **Prudence**: Being careful about one's choices; not taking undue risks; not saying or doing things that might later be regretted
- **Self-Regulation** [self-control]: Regulating what one feels and does; being disciplined; controlling one's appetites and emotions

#### 6. **Transcendence** - Strengths that forge connections to the larger universe and provide meaning

- **Appreciation of Beauty and Excellence** [awe, wonder, elevation]: Noticing and appreciating beauty, excellence, and/or skilled performance in various domains of life, from nature to art to mathematics to science to everyday experience
- **Gratitude**: Being aware of and thankful for the good things that happen; taking time to express thanks
- **Hope** [optimism, future-mindedness, future orientation]: Expecting the best in the future and working to achieve it; believing that a good future is something that can be brought about
- **Humor** [playfulness]: Liking to laugh and tease; bringing smiles to other people; seeing the light side; making (not necessarily telling) jokes
- **Spirituality** [faith, purpose]: Having coherent beliefs about the higher purpose and meaning of the universe; knowing where one fits within the larger scheme; having beliefs about the meaning of life that shape conduct and provide comfort

## APPENDIX B HIC STATUS

WAYNE STATE  
UNIVERSITY

IRB Administration Office  
87 East Canfield, Second Floor  
Detroit, Michigan 48201  
Phone: (313) 577-1628  
FAX: (313) 993-7122  
<http://irb.wayne.edu>

## NOTICE OF EXPEDITED APPROVAL

**To:** Paul Deschamps  
Theoretical & Behavior Foundations  
3901 Beaubien

**From:** Dr. Deborah Ellis or designee D. Ellis / PB.  
Chairperson, Behavioral Institutional Review Board (B3)

**Date:** September 17, 2014

**RE:** IRB #: 123113B3E  
Protocol Title: Adolescent's Views of Themselves and Their Surroundings  
Funding Source:  
Protocol #: 1312012645

**Expiration Date:** September 16, 2015

**Risk Level / Category:** 45 CFR 46.404 - Research not involving greater than minimal risk

The above-referenced protocol and items listed below (if applicable) were **APPROVED** following *Expedited Review* Category (#7)\* by the Chairperson/designee for the Wayne State University Institutional Review Board (B3) for the period of 09/17/2014 through 09/16/2015. This approval does not replace any departmental or other approvals that may be required.

- Revised Protocol Summary Form (received in the IRB Office 9/17/2014)
- Protocol (received in the IRB Office 12/9/2013)
- A waiver of consent and a waiver for written documentation of informed consent (for parental permission) have been granted according to 45 CFR 46.116(d). This waiver satisfies: 1) risk is no more than minimal, 2) the waiver does not adversely affect the rights and welfare of research participants, 3) the research could not be practicably carried out without the waiver, and 4) providing participants additional pertinent information after participation is not appropriate.
- Parental Permission/Research Informed Consent/Information Sheet (dated 9/14/2014)
- Documentation of Adolescent Assent Form for Ages 13-17 (dated 2/24/2014)
- Data Collection Tool: Master Questions - Parent Achievement Orientation, Parent Involvement, Peer Achievement Orientation, Peer Achievement Orientation, Teacher Social Support, School Attachment, Adolescent Achievement Orientation, Academic Achievement, Risky School Behavior, Inventory of Character Strengths - Youth, and Satisfaction with Life Scale

- ° Federal regulations require that all research be reviewed at least annually. You *may* receive a "Continuation Renewal Reminder" approximately two months prior to the expiration date; however, it is the Principal Investigator's responsibility to obtain review and continued approval **before** the expiration date. Data collected during a period of lapsed approval is unapproved research and can never be reported or published as research data.
- ° All changes or amendments to the above-referenced protocol require review and approval by the IRB **BEFORE** implementation.
- ° Adverse Reactions/Unexpected Events (AR/UE) must be submitted on the appropriate form within the timeframe specified in the IRB Administration Office Policy (<http://www.irb.wayne.edu/policies-human-research.php>).

**NOTE:**

1. Upon notification of an impending regulatory site visit, hold notification, and/or external audit the IRB Administration Office must be contacted immediately.
2. Forms should be downloaded from the IRB website at **each** use.

\*Based on the Expedited Review List, revised November 1998

## APPENDIX C INSTRUMENT

### Master List of Questions

#### Parent Achievement Orientation (Paulson, 1994)

Using the scale below, indicate the number which best describes your parents

- 1 1 My parents try to get me to do my best on everything I do.  

1 very unlike	2 more unlike than like	3 neither like nor unlike	4 more like than unlike	5 very like
---------------	----------------------------	------------------------------	----------------------------	-------------
- 2 2 My parents think that education is a very important part of adolescence.  

1 very unlike	2 more unlike than like	3 neither like nor unlike	4 more like than unlike	5 very like
---------------	----------------------------	------------------------------	----------------------------	-------------
- 3 3 My parents usually set high standards for me to meet.  

1 very unlike	2 more unlike than like	3 neither like nor unlike	4 more like than unlike	5 very like
---------------	----------------------------	------------------------------	----------------------------	-------------
- 4 4 My parents think I should go to college.  

1 very unlike	2 more unlike than like	3 neither like nor unlike	4 more like than unlike	5 very like
---------------	----------------------------	------------------------------	----------------------------	-------------
- 5 5 Hard work is very important to my parents.  

1 very unlike	2 more unlike than like	3 neither like nor unlike	4 more like than unlike	5 very like
---------------	----------------------------	------------------------------	----------------------------	-------------
- 6 6 My parents have high aspirations for my future.  

1 very unlike	2 more unlike than like	3 neither like nor unlike	4 more like than unlike	5 very like
---------------	----------------------------	------------------------------	----------------------------	-------------
- 7 7 My parents think that getting ahead in life is very important.  

1 very unlike	2 more unlike than like	3 neither like nor unlike	4 more like than unlike	5 very like
---------------	----------------------------	------------------------------	----------------------------	-------------
- 8 8 My parents do not think I should be concerned about what kind of career I may have.  

1 very unlike	2 more unlike than like	3 neither like nor unlike	4 more like than unlike	5 very like
---------------	----------------------------	------------------------------	----------------------------	-------------

#### Parent Involvement (Paulson, 1994)

- 9 1 My parents go to parent-teacher conferences.  

1 very unlike	2 more unlike than like	3 neither like nor unlike	4 more like than unlike	5 very like
---------------	----------------------------	------------------------------	----------------------------	-------------
- 10 2 My parents seldom look at my tests and papers from school.  

1 very unlike	2 more unlike than like	3 neither like nor unlike	4 more like than unlike	5 very like
---------------	----------------------------	------------------------------	----------------------------	-------------
- 11 3 It does not really matter to my parents what grades I get.  

1 very unlike	2 more unlike than like	3 neither like nor unlike	4 more like than unlike	5 very like
---------------	----------------------------	------------------------------	----------------------------	-------------
- 12 4 My parents are not involved in school programs for parents  

1 very unlike	2 more unlike than like	3 neither like nor unlike	4 more like than unlike	5 very like
---------------	----------------------------	------------------------------	----------------------------	-------------

- 13 5 My parents sometime do volunteer work at my school.
- 1 very unlike 2 more unlike than like 3 neither like nor unlike 4 more like than unlike 5 very like
- 14 6 My parents think homework is a very important part of school.
- 1 very unlike 2 more unlike than like 3 neither like nor unlike 4 more like than unlike 5 very like
- 15 7 When I get poor grades, my parents encourage me to try harder.
- 1 very unlike 2 more unlike than like 3 neither like nor unlike 4 more like than unlike 5 very like
- 16 8 My parents usually do not go to school functions.
- 1 very unlike 2 more unlike than like 3 neither like nor unlike 4 more like than unlike 5 very like
- 17 9 My parents make sure that I have done my homework
- 1 very unlike 2 more unlike than like 3 neither like nor unlike 4 more like than unlike 5 very like
- 18 10 My parents usually know the grades I get.
- 1 very unlike 2 more unlike than like 3 neither like nor unlike 4 more like than unlike 5 very like
- 19 11 My parents do not think that they should help me with my homework.
- 1 very unlike 2 more unlike than like 3 neither like nor unlike 4 more like than unlike 5 very like
- 20 12 When I get poor grades, my parents offer to help.
- 1 very unlike 2 more unlike than like 3 neither like nor unlike 4 more like than unlike 5 very like
- 21 13 When I ask for help with homework, my parents usually give it to me.
- 1 very unlike 2 more unlike than like 3 neither like nor unlike 4 more like than unlike 5 very like
- 22 14 My parents usually go to activities in which I am involved at school.
- 1 very unlike 2 more unlike than like 3 neither like nor unlike 4 more like than unlike 5 very like

Peer Achievement Orientation (Fuligni (1995)

- 23 1 What proportion of your friends are planning to go to college?
- 1 almost none 2 less than half 3 about half 4 more than half 5 almost all
- 24 2 What proportion of your friends would you describe as hard working?
- 1 almost none 2 less than half 3 about half 4 more than half 5 almost all
- 25 3 What proportion of your friends would you describe as doing well in school?
- 1 almost none 2 less than half 3 about half 4 more than half 5 almost all

Peer Achievement Orientation (adapted from Paulson, 1994)

Using the scale below, indicate the number which best describes your friends.

- 26 1 My friends try to get themselves to do their best on everything they do.
- 1 very unlike 2 more unlike than like 3 neither like nor unlike 4 more like than unlike 5 very like
- 27 2 My friends think that education is a very important part of adolescence.
- 1 very unlike 2 more unlike than like 3 neither like nor unlike 4 more like than unlike 5 very like
- 28 3 My friends set high standards for themselves to meet.
- 1 very unlike 2 more unlike than like 3 neither like nor unlike 4 more like than unlike 5 very like
- 29 4 My friends think they should go to college.
- 1 very unlike 2 more unlike than like 3 neither like nor unlike 4 more like than unlike 5 very like
- 30 5 Hard work is very important to my friends.
- 1 very unlike 2 more unlike than like 3 neither like nor unlike 4 more like than unlike 5 very like
- 31 6 My friends have high aspirations for their future.
- 1 very unlike 2 more unlike than like 3 neither like nor unlike 4 more like than unlike 5 very like
- 32 7 My friends think that getting ahead in life is very important.
- 1 very unlike 2 more unlike than like 3 neither like nor unlike 4 more like than unlike 5 very like
- 33 8 My friends do not think they should be concerned about what kind of career they may have.
- 1 very unlike 2 more unlike than like 3 neither like nor unlike 4 more like than unlike 5 very like

Teacher Social Support (CASSS; Malecki & Demray, 2002)

Using the scale, indicate how often these statements are true?

- 34 1 My teacher cares about me.
- 1 never 2 Almost never 3 some of the time 4 most of the time 5 almost always 6 always
- 35 2 My teacher treats me fairly.
- 1 never 2 Almost never 3 some of the time 4 most of the time 5 almost always 6 always
- 36 3 My teacher makes it okay to ask questions.
- 1 never 2 Almost never 3 some of the time 4 most of the time 5 almost always 6 always
- 37 4 My teacher explains things that I don't understand
- 1 never 2 Almost never 3 some of the time 4 most of the time 5 almost always 6 always
- 38 5 My teacher shows me how to do things.
- 1 never 2 Almost never 3 some of the time 4 most of the time 5 almost always 6 always
- 39 6 My teacher helps me solve problems by giving me information.
- 1 never 2 Almost never 3 some of the time 4 most of the time 5 almost always 6 always
- 40 7 My teacher tells me I did a good job when I've done something well.

	1 never	2 Almost never	3 some of the time	4 most of the time	5 almost always	6 always
41 8 My Teacher nicely tells me when I make mistakes						
	1 never	2 Almost never	3 some of the time	4 most of the time	5 almost always	6 always
42 9 My teacher tells me how well I do on tasks						
	1 never	2 Almost never	3 some of the time	4 most of the time	5 almost always	6 always
43 10 My teacher makes sure I have what I need for school.						
	1 never	2 Almost never	3 some of the time	4 most of the time	5 almost always	6 always
44 11 My teacher takes time to help me learn to do something well.						
	1 never	2 Almost never	3 some of the time	4 most of the time	5 almost always	6 always
45 12 My teacher spends time with me when I need help.						
	1 never	2 Almost never	3 some of the time	4 most of the time	5 almost always	6 always

School Attachment (Somers & Gizzi, 2001)

46 1 I enjoy attending school.	Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree
47 2 I am happy with my friendships at school.	Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree
48 3 I am proud of my school.	Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree
49 4 I value school.	Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree
50 5 School is important in my life.	Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree
51 6 I feel I belong here at this school.	Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree
52 7 School is one of my favorite places.	Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree
53 8 Students at this school treat me with respect.	Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree
54 9 Teachers at this school treat me with respect.	Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree
55 10 People at this school care about me.	Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree

Adolescent Achievement Orientation (adapted from Paulson, 1994)

Using the scale below, indicate the number which best describes you.

56 1 I try to get myself to do my best on everything I do.
--



- 57 2 I think that education is a very important part of adolescence.
- 1 very unlike    2 more unlike than like    3 neither like nor unlike    4 more like than unlike    5 very like
- 58 3 I usually set high standards for myself to meet.
- 1 very unlike    2 more unlike than like    3 neither like nor unlike    4 more like than unlike    5 very like
- 59 4 I think I should go to college.
- 1 very unlike    2 more unlike than like    3 neither like nor unlike    4 more like than unlike    5 very like
- 60 5 Hard work is very important to me.
- 1 very unlike    2 more unlike than like    3 neither like nor unlike    4 more like than unlike    5 very like
- 61 6 I have high aspirations for my future.
- 1 very unlike    2 more unlike than like    3 neither like nor unlike    4 more like than unlike    5 very like
- 62 7 I think that getting ahead in life is very important.
- 1 very unlike    2 more unlike than like    3 neither like nor unlike    4 more like than unlike    5 very like
- 63 8 I do not think I should be concerned about what kind of career I may have.
- 1 very unlike    2 more unlike than like    3 neither like nor unlike    4 more like than unlike    5 very like

#### Academic Achievement

- 64 1 What grades do you most often receive
- | Mostly As | Mostly As and Bs | Mostly Bs | Mostly Bs and Cs | Mostly Cs | Mostly Cs and Ds | Mostly Ds | Mostly Ds and Es | Mostly Es |
|-----------|------------------|-----------|------------------|-----------|------------------|-----------|------------------|-----------|
|-----------|------------------|-----------|------------------|-----------|------------------|-----------|------------------|-----------|
- 65 2 What is your current cumulative gpa?
- |       |           |           |           |           |           |                |
|-------|-----------|-----------|-----------|-----------|-----------|----------------|
| 4.0 + | 3.50-3.99 | 3.00-3.49 | 2.50-2.99 | 2.00-2.49 | 1.50-1.99 | less than 1.50 |
|-------|-----------|-----------|-----------|-----------|-----------|----------------|

#### Risky School Behavior (Somers & Gizzi, 2001).

Please indicate how often the following statements are true.

- 66 1 I am tardy for class
- |       |                        |                             |                              |                           |                     |
|-------|------------------------|-----------------------------|------------------------------|---------------------------|---------------------|
| never | less than once a month | once or a few times a month | once or a few times per week | daily or almost every day | several times a day |
|-------|------------------------|-----------------------------|------------------------------|---------------------------|---------------------|
- 67 2 I have an unexcused absence
- |       |                        |                             |                              |                           |                     |
|-------|------------------------|-----------------------------|------------------------------|---------------------------|---------------------|
| never | less than once a month | once or a few times a month | once or a few times per week | daily or almost every day | several times a day |
|-------|------------------------|-----------------------------|------------------------------|---------------------------|---------------------|
- 68 3 I receive an office discipline referral
- |       |                        |                             |                              |                           |                     |
|-------|------------------------|-----------------------------|------------------------------|---------------------------|---------------------|
| never | less than once a month | once or a few times a month | once or a few times per week | daily or almost every day | several times a day |
|-------|------------------------|-----------------------------|------------------------------|---------------------------|---------------------|
- 69 4 I am suspended

never	less than once a month	once or a few times a month	once or a few times per week	daily or almost every day	several times a day
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## Inventory of Character Strengths - Youth - s (Park &amp; Peterson, 2006)

70	1	There is someone who will listen to me when I have a problem.	not like me at all	a little like me	Somewhat like me	Mostly like me	Very much like me
71	2	I think that life is very exciting.	not like me at all	a little like me	Somewhat like me	Mostly like me	Very much like me
72	3	Everyone's opinion is equally important to me.	not like me at all	a little like me	Somewhat like me	Mostly like me	Very much like me
73	4	I am not a show-off.	not like me at all	a little like me	Somewhat like me	Mostly like me	Very much like me
74	5	I am less than honest if it will keep me out of trouble.	not like me at all	a little like me	Somewhat like me	Mostly like me	Very much like me
75	6	I am viewed as the leader when I'm playing with others.	not like me at all	a little like me	Somewhat like me	Mostly like me	Very much like me
76	7	I often stay mad at people even when they apologize.	not like me at all	a little like me	Somewhat like me	Mostly like me	Very much like me
77	8	When others tell me about their problems, I become very concerned.	not like me at all	a little like me	Somewhat like me	Mostly like me	Very much like me
78	9	I am usually full of energy.	not like me at all	a little like me	Somewhat like me	Mostly like me	Very much like me
79	10	I feel better when I see beautiful pictures or listen to great music.	not like me at all	a little like me	Somewhat like me	Mostly like me	Very much like me
80	11	I expect good things to come my way.	not like me at all	a little like me	Somewhat like me	Mostly like me	Very much like me
81	12	I am always interested in discovering more.	not like me at all	a little like me	Somewhat like me	Mostly like me	Very much like me
82	13	I get excited when I see there is something new to learn.	not like me at all	a little like me	Somewhat like me	Mostly like me	Very much like me
83	14	If there is a chance to learn something new, I jump right in.	not like me at all	a little like me	Somewhat like me	Mostly like me	Very much like me
84	15	I am certain I can get through bad times.	not like me at all	a little like me	Somewhat like me	Mostly like me	Very much like me
85	16	I am able to steer clear of trouble with others.	not like me at all	a little like me	Somewhat like me	Mostly like me	Very much like me
86	17	I often don't feel thankful.	not like me at all	a little like me	Somewhat like me	Mostly like me	Very much like me

	not like me at all	a little like me	Somewhat like me	Mostly like me	Very much like me
87	18 I do the right thing even if others tease me for it.				
	not like me at all	a little like me	Somewhat like me	Mostly like me	Very much like me
88	19 I enjoy creating things that are new and different.				
	not like me at all	a little like me	Somewhat like me	Mostly like me	Very much like me
89	20 I have a faith that I practice.				
	not like me at all	a little like me	Somewhat like me	Mostly like me	Very much like me
90	21 I review the positives and negatives of every option when I am making a decision.				
	not like me at all	a little like me	Somewhat like me	Mostly like me	Very much like me
91	22 I am a very loyal member of my group/team.				
	not like me at all	a little like me	Somewhat like me	Mostly like me	Very much like me
92	23 Even when things look bad, I stay hopeful.				
	not like me at all	a little like me	Somewhat like me	Mostly like me	Very much like me
93	24 I review the consequences of my behavior before I take action.				
	not like me at all	a little like me	Somewhat like me	Mostly like me	Very much like me
94	25 I have a lot of enthusiasm.				
	not like me at all	a little like me	Somewhat like me	Mostly like me	Very much like me
95	26 I have a lot of patience.				
	not like me at all	a little like me	Somewhat like me	Mostly like me	Very much like me
96	27 I carefully weigh the opinions of others before I make up my mind.				
	not like me at all	a little like me	Somewhat like me	Mostly like me	Very much like me
97	28 I feel better when I pray.				
	not like me at all	a little like me	Somewhat like me	Mostly like me	Very much like me
98	29 I get along well with a variety of people.				
	not like me at all	a little like me	Somewhat like me	Mostly like me	Very much like me
99	30 My temper often gets the best of me.				
	not like me at all	a little like me	Somewhat like me	Mostly like me	Very much like me
100	31 I don't boast about what I achieve.				
	not like me at all	a little like me	Somewhat like me	Mostly like me	Very much like me
101	32 I am energized by learning new things.				
	not like me at all	a little like me	Somewhat like me	Mostly like me	Very much like me
102	33 I do kind things for people on my own without being told.				
	not like me at all	a little like me	Somewhat like me	Mostly like me	Very much like me
103	34 I often figure out different ways of doing things.				
	not like me at all	a little like me	Somewhat like me	Mostly like me	Very much like me
104	35 I complete all of my homework even when many challenges arise.				
	not like me at all	a little like me	Somewhat like me	Mostly like me	Very much like me

105	36 I respect the opinions of my teammates, even when I disagree.	not like me at all	a little like me	Somewhat like me	Mostly like me	Very much like me
106	37 I consider every option before I make a final decision.	not like me at all	a little like me	Somewhat like me	Mostly like me	Very much like me
107	38 I am honest even when lying could keep me from getting in trouble.	not like me at all	a little like me	Somewhat like me	Mostly like me	Very much like me
108	39 I am viewed as someone who gets things done.	not like me at all	a little like me	Somewhat like me	Mostly like me	Very much like me
109	40 Making people laugh is something I am good at.	not like me at all	a little like me	Somewhat like me	Mostly like me	Very much like me
110	41 I treat everyone fairly even if I don't like them.	not like me at all	a little like me	Somewhat like me	Mostly like me	Very much like me
111	42 I often find myself doing things that I know I shouldn't be doing.	not like me at all	a little like me	Somewhat like me	Mostly like me	Very much like me
112	43 I feel loved.	not like me at all	a little like me	Somewhat like me	Mostly like me	Very much like me
113	44 When I really want to do something right now, I am able to wait.	not like me at all	a little like me	Somewhat like me	Mostly like me	Very much like me
114	45 I forgive people if they say they are sorry for hurting me.	not like me at all	a little like me	Somewhat like me	Mostly like me	Very much like me
115	46 I love learning about how to do different things.	not like me at all	a little like me	Somewhat like me	Mostly like me	Very much like me
116	47 People tell me that I am a wise person.	not like me at all	a little like me	Somewhat like me	Mostly like me	Very much like me
117	48 I let other kids talk about themselves rather than focusing the attention on me.	not like me at all	a little like me	Somewhat like me	Mostly like me	Very much like me
118	49 I am a forgiving person.	not like me at all	a little like me	Somewhat like me	Mostly like me	Very much like me
119	50 When someone is being treated unfairly, I stick up for them.	not like me at all	a little like me	Somewhat like me	Mostly like me	Very much like me
120	51 I believe there is a Higher Power that points me to do the right thing.	not like me at all	a little like me	Somewhat like me	Mostly like me	Very much like me
121	52 I love exploring new and different things.	not like me at all	a little like me	Somewhat like me	Mostly like me	Very much like me
122	53 I speak up when I see someone being mean to others.	not like me at all	a little like me	Somewhat like me	Mostly like me	Very much like me
123	54 I listen carefully to other group members when our team is making a decision.	not like me at all	a little like me	Somewhat like me	Mostly like me	Very much like me

	not like me at all	a little like me	Somewhat like me	Mostly like me	Very much like me
124	55 People look up to me as a leader and they give me their trust.				
	not like me at all	a little like me	Somewhat like me	Mostly like me	Very much like me
125	56 When I learn about people who are suffering (e.g., those who are poor or sick), I worry about them.				
	not like me at all	a little like me	Somewhat like me	Mostly like me	Very much like me
126	57 People say that I am funny.				
	not like me at all	a little like me	Somewhat like me	Mostly like me	Very much like me
127	58 I don't give less than 100% when I am working on something.				
	not like me at all	a little like me	Somewhat like me	Mostly like me	Very much like me
128	59 I frequently have creative ideas.				
	not like me at all	a little like me	Somewhat like me	Mostly like me	Very much like me
129	60 I can easily bring smiles to people's faces.				
	not like me at all	a little like me	Somewhat like me	Mostly like me	Very much like me
130	61 I see myself as a hard worker.				
	not like me at all	a little like me	Somewhat like me	Mostly like me	Very much like me
131	62 I am good at leading a group to get the job done.				
	not like me at all	a little like me	Somewhat like me	Mostly like me	Very much like me
132	63 My friends get my opinion before they make important decisions.				
	not like me at all	a little like me	Somewhat like me	Mostly like me	Very much like me
133	64 I frequently ask questions.				
	not like me at all	a little like me	Somewhat like me	Mostly like me	Very much like me
134	65 When someone apologizes, I give them a second chance.				
	not like me at all	a little like me	Somewhat like me	Mostly like me	Very much like me
135	66 I often feel lucky for things in my life.				
	not like me at all	a little like me	Somewhat like me	Mostly like me	Very much like me
136	67 I tell the truth even when it means I won't get what I want.				
	not like me at all	a little like me	Somewhat like me	Mostly like me	Very much like me
137	68 I openly express my feelings to my family and friends.				
	not like me at all	a little like me	Somewhat like me	Mostly like me	Very much like me
138	69 I like going to art exhibits or performances.				
	not like me at all	a little like me	Somewhat like me	Mostly like me	Very much like me
139	70 I often notice beautiful things around me.				
	not like me at all	a little like me	Somewhat like me	Mostly like me	Very much like me
140	71 Others trust me to be truthful.				
	not like me at all	a little like me	Somewhat like me	Mostly like me	Very much like me
141	72 I talk and behave appropriately in most social situations.				
	not like me at all	a little like me	Somewhat like me	Mostly like me	Very much like me

142	73 I see myself as a very creative person.	not like me at all	a little like me	Somewhat like me	Mostly like me	Very much like me
143	74 I wait until I have all the facts before I make a decision.	not like me at all	a little like me	Somewhat like me	Mostly like me	Very much like me
144	75 I don't come across like I am better than others.	not like me at all	a little like me	Somewhat like me	Mostly like me	Very much like me
145	76 I am a thankful person.	not like me at all	a little like me	Somewhat like me	Mostly like me	Very much like me
146	77 I am able to control my anger really well.	not like me at all	a little like me	Somewhat like me	Mostly like me	Very much like me
147	78 I do whatever I can when I see people who are in need.	not like me at all	a little like me	Somewhat like me	Mostly like me	Very much like me
148	79 I am a cheerful person.	not like me at all	a little like me	Somewhat like me	Mostly like me	Very much like me
149	80 I stand up for what is right, even when I am scared.	not like me at all	a little like me	Somewhat like me	Mostly like me	Very much like me
150	81 Others tell me that I offer good advice to people.	not like me at all	a little like me	Somewhat like me	Mostly like me	Very much like me
151	82 I love beautiful things.	not like me at all	a little like me	Somewhat like me	Mostly like me	Very much like me
152	83 I am always full of questions.	not like me at all	a little like me	Somewhat like me	Mostly like me	Very much like me
153	84 There is a Higher Power looking out for my best interests.	not like me at all	a little like me	Somewhat like me	Mostly like me	Very much like me
154	85 I think carefully before I act.	not like me at all	a little like me	Somewhat like me	Mostly like me	Very much like me
155	86 I enjoy telling people funny stories and jokes.	not like me at all	a little like me	Somewhat like me	Mostly like me	Very much like me
156	87 I treat people fairly even when they are unfriendly.	not like me at all	a little like me	Somewhat like me	Mostly like me	Very much like me
157	88 I am very grateful for my family.	not like me at all	a little like me	Somewhat like me	Mostly like me	Very much like me
158	89 I am cautious not to do something that I will regret later.	not like me at all	a little like me	Somewhat like me	Mostly like me	Very much like me
159	90 I have a positive outlook about the future.	not like me at all	a little like me	Somewhat like me	Mostly like me	Very much like me
160	91 Others want me in charge when a group project needs to be done.	not like me at all	a little like me	Somewhat like me	Mostly like me	Very much like me

- |     |    |  |                  |                  |                |                   |
|-----|----|--|------------------|------------------|----------------|-------------------|
|     |    | not like me at all   | a little like me | Somewhat like me | Mostly like me | Very much like me |
| 161 | 92 | I am very cooperative when I work in groups.                       |                  |                  |                |                   |
|     |    | not like me at all   | a little like me | Somewhat like me | Mostly like me | Very much like me |
| 162 | 93 | I do not hesitate to tell my family and friends that I love them.  |                  |                  |                |                   |
|     |    | not like me at all   | a little like me | Somewhat like me | Mostly like me | Very much like me |
| 163 | 94 | In a group I give everyone an equal chance to be involved.         |                  |                  |                |                   |
|     |    | not like me at all   | a little like me | Somewhat like me | Mostly like me | Very much like me |
| 164 | 95 | I am able to solve problems in a way that is pleasing to everyone. |                  |                  |                |                   |
|     |    | not like me at all   | a little like me | Somewhat like me | Mostly like me | Very much like me |
| 165 | 96 | I often know the right thing to say to make people feel good.      |                  |                  |                |                   |
|     |    | not like me at all   | a little like me | Somewhat like me | Mostly like me | Very much like me |

Demographic questions

Please respond to the following questions

- |     |    |  |                        |                  |                      |                   |                  |  |
|-----|----|--|------------------------|------------------|----------------------|-------------------|------------------|--|
| 166 | 1  | What is your current grade?                      |                        |                  |                      |                   |                  |  |
|     |    |  | 9th                    | 10th             | 11th                 | 12th              |                  |  |
| 167 | 2  | What is your current age?                        |                        |                  |                      |                   |                  |  |
|     |    | 13   | 14                     | 15               | 16                   | 17                | 18               |  |
| 168 | 3  | What is your gender?                             |                        |                  |                      |                   |                  |  |
|     |    |  | male                   | female           |                      |                   |                  |  |
| 169 | 4  | What is your race/ethnicity?                     |                        |                  |                      |                   |                  |  |
|     |    | African American                                 | Asian/Pacific Islander | Caucasian        | Hispanic             | Middle Eastern    | other _____      |  |
| 170 | 5  | Do you received a free or reduced school lunch?  |                        |                  |                      |                   |                  |  |
|     |    |  | free lunch             | reduced lunch    | I do not             | I am unsure       |                  |  |
| 171 | 6  | Who do you live with? Circle all that apply.     |                        |                  |                      |                   |                  |  |
|     |    | mom  | dad                    | step parent      | grand parent         | other adult _____ |                  |  |
| 172 | 7  | What is the mother's highest level of education? |                        |                  |                      |                   |                  |  |
|     |    | some grade school                                | finished grade school  | some high school | finished high school | some college      | finished college | attended graduate or professional school after college |
| 173 | 8  | What is your mother's current job type?          |                        |                  |                      |                   |                  |  |
|     |    | does not work                                    | works as a _____       |                  |                      |                   |                  |  |
| 174 | 9  | What is the father's highest level of education? |                        |                  |                      |                   |                  |  |
|     |    | some grade school                                | finished grade school  | some high school | finished high school | some college      | finished college | attended graduate or professional school after college |
| 175 | 10 | What is your father's current job type?          |                        |                  |                      |                   |                  |  |
|     |    | does not work                                    | works as a _____       |                  |                      |                   |                  |  |

## APPENDIX D INFORMATION SHEET

Title of Study: Adolescent's view of themselves and their surroundings

### Parental Information Sheet

Title of Study: Adolescent's views of themselves and their surroundings.

#### Purpose:

You are being asked to allow your child to be in a research study at their school that is being conducted by Paul Deschamps, College of Education Doctoral Candidate from Wayne State University to learn more about how adolescents view themselves and their surroundings. Your child has been selected because they attend Northville High School.

#### Study Procedures:

If you decide to allow your child to take part in the study, your child will be asked to complete a questionnaire during their seminar period. Topics of questions will include your child's perception of family relationships, teacher support, attachment to Northville High School, their views on school achievement and school behavior, and their G.P.A. Your child will have the option of not participating. If your child does participate, they will have the option of not answering some of the questions. Your child will spend 15-20 minutes to complete the questionnaire. Copies of the questionnaires will be available of parents to review in the main office of the high school.

#### Benefits:

There may be no direct benefits for your child; however, information from this study may benefit other people now or in the future.

**Risks:** There are no known risks at this time to your child for participation in this study.

**Costs:** There are no costs to you or your child to participate in this study.

**Compensation:** You or your child will not be paid for taking part in this study.

#### Confidentiality:

All information collected about your child during the course of this study will be kept confidential to the extent permitted by law. Information that identifies your child personally will not be released without your written permission. However, the study sponsor (if applicable), the Institutional Review Board (IRB) at Wayne State University or federal agencies with appropriate regulatory oversight (Office for Human Research Protections [OHRP], Office of Civil Rights [OCR], etc.), may review your child's records.

#### Voluntary Participation /Withdrawal:

Your child's participation in this study is voluntary. You and your child are free not to participate or to withdraw at any time. Your decision about enrolling your child in the study will not change any present or future relationships with Wayne State University or its affiliates, your child's school, your child's teacher, your child's grades or other services you or your child are entitled to receive.

#### Questions:

If you have any questions about this study now or in the future, you may contact Paul Deschamps at the following phone number (313) 657-1427. If you have questions or concerns about your rights as a research participant, the Chair of the Institutional Review Board can be contacted at (313) 577-1628. If you are unable to contact the research staff, or if you want to talk to someone other than the research staff, you may also call (313) 577-1628 to ask questions or voice concerns or complaints.

Submission/Revision Date: [2/24/14]

Page 1 of 2

Parent/Guardian Initials \_\_\_\_\_

Form date: 11/12



Title of Study: Adolescent's view of themselves and their surroundings

**Participation:**

If you do not contact the principal investigator (PI) within a 2-week period, to state that you do not give permission for your child to be enrolled in the research trial, your child will be enrolled into the research. You may contact the PI by phone (313) 657-1427, email: [Paul.Deschamps@wayne.edu](mailto:Paul.Deschamps@wayne.edu), or complete the tear off sheet below and return it to your child's teacher.

If you do NOT wish to have your child participant in the study, you may fill out the form and return it to your child's teacher.

I do NOT allow my child _____ to participate in the research study	
Name	
"Adolescent's views of themselves and their surroundings."	
_____	
Printed Name of Parent	
_____	_____
Signature of Parent	Date

Submission/Revision Date: [2/24/14]

Page 2 of 2

Parent/Guardian Initials \_\_\_\_\_

Form date: 11/12

## APPENDIX E ADOLESCENT ASSENT

Adolescent's views of themselves and their surroundings

### Documentation of Adolescent Assent Form (ages 13-17)

**Title: Adolescent's views of themselves and their surroundings**

**Study Investigator: Paul Deschamps**

**Why am I here?**

This is a research study. Only people who choose to take part are included in research studies. You are being asked to take part in this study because your seminar has been randomly selected for participation. Please take time to make your decision. Talk to your family about it and be sure to ask questions about anything you don't understand.

**Why are they doing this study?**

This study is being done to find out what adolescents think about themselves and their surroundings, including their schools and parents, their academic achievement, and their choices around school attendance and behavior.

**What will happen to me?**

You will be asked to answer a series of questions about your views of yourself and others in your life. The questions are in survey format, where you circle the answer that best reflects how you think or feel.

**How long will I be in the study?**

You will be in the study for 15-20 minutes.

**Will the study help me?**

You will not benefit from being in this study; however information from this study may help other people in the future by providing additional information to researchers about the views adolescents have of themselves and their surroundings.

**Will anything bad happen to me?**

Nothing bad will happen to you by participating in this study. You circle answers that reflect how you think and feel. All of your responses will be kept confidential.

**Do my parents or guardians know about this? (If applicable)**

This study information has been given to your parents/guardian at least 2 weeks ago. They were given an opportunity to refuse permission for you to participate, but they did not. You can talk this over with them before you decide.

Submission/Revision Date: 2/24/2014  
Protocol Version #: [1.0]

Page 1 of 3

Participants Initials \_\_\_\_\_

HIC Date: 11/12

## Adolescent's views of themselves and their surroundings

**What about confidentiality?**

Every reasonable effort will be made to keep your records (medical or other) and/or your information confidential, however we do have to let some people look at your study records.

We will keep your records private unless we are required by law to share any information. The study doctor can use the study results as long as you cannot be identified.

**What if I have any questions?**

For questions about the study please call Paul Deschamps at (313) 657 1427. If you have questions or concerns about your rights as a research participant, the Chair of the Institutional Review Board can be contacted at (313) 577-1628.

**Do I have to be in the study?**

You don't have to be in this study if you don't want to or you can stop being in the study at any time. Please discuss your decision with your parents and researcher. No one will be angry if you decide to stop being in the study.

Submission/Revision Date: 2/24/2014  
Protocol Version #: [1.0]

Page 2 of 3

Participants Initials \_\_\_\_\_

HIC Date: 11/12

## Adolescent's views of themselves and their surroundings

## AGREEMENT TO BE IN THE STUDY

Your signature below means that you have read the above information about the study and have had a chance to ask questions to help you understand what you will do in this study. Your signature also means that you have been told that you can change your mind later and withdraw if you want to. By signing this assent form you are not giving up any of your legal rights. You will be given a copy of this form.

\_\_\_\_\_  
Signature of Participant (13 yrs & older)

\_\_\_\_\_  
Date

\_\_\_\_\_  
Printed name of Participant (13 yrs & older)

\_\_\_\_\_  
\*\*Signature of Witness (When applicable)

\_\_\_\_\_  
Date

\_\_\_\_\_  
Printed Name of Witness

\_\_\_\_\_  
Signature of Person who explained this form

\_\_\_\_\_  
Date

\_\_\_\_\_  
Printed Name of Person who explained form

\*\* Use when participant has had consent form read to them (i.e., illiterate, legally blind, translated into foreign language).

Submission/Revision Date: 2/24/2014  
Protocol Version #: [1.0]

Page 3 of 3

Participants Initials \_\_\_\_\_

HIC Date: 11/12

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**ABSTRACT****THE ROLE OF INDIVIDUAL CHARACTER STRENGTHS IN ADOLESCENT ACADEMIC ACHIEVEMENT AND RISKY SCHOOL BEHAVIORS**

by

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Adolescent achievement is a major developmental task in adolescence and reducing Risky School Behaviors is an important part of the process. Patterns of adolescent achievement and general development are the result of the cumulative process that includes a long history of experience and socialization in school, in the family, in the peer group, and in the community. This study is the first to expand understanding of these key interrelated but unique outcome variables of both Academic Achievement and risky School Behavior through examination of individual Character Strengths in the presence of other key intrapersonal and contextual variables from multiple systems in the child's life including intrapersonal/individual and microsystem (family, peer, school) factors. Over 500 adolescents from 2 different high schools participated in the study providing information on demographics, individual Character Strengths, Adolescent Achievement Orientation, Parent Achievement Orientation, Parent Involvement, Peer Achievement Orientation, Teacher Social Support, School Attachment, Academic Achievement and Risky School Behaviors. Results revealed that the individual Character Strengths of Persistence and Prudence were significant in predicting Academic Achievement and Risky School Behaviors, respectively, when considered in comparison with other know predictors. Implications and possible application of Character Strengths to inform school-wide character education

programs as well as individual character building interventions with the goal of increasing student achievement and decreasing Risky School Behaviors is discussed.

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