The Effect of a Seventh Grade After School Leadership Program on the Developmental Assets, Academic Achievement, and Behavior of Non-thriving Students

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The Effect of a Seventh Grade After School Leadership Program on the
Developmental Assets, Academic Achievement, and Behavior
of Non-thriving Students

by

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Abstract

The Effect of a Seventh Grade After School Leadership Program on the Developmental Assets, Academic Achievement, and Behavior of Non-thriving Students

Beth L. Fink
University of Nebraska

The purpose of this study was to determine the impact of the Time Travelers Leadership Program, an after school intervention program, on non-thriving seventh graders' Developmental Assets, academic achievement, and behavior. Schools are facing the unprecedented challenge to educate a multicultural and multilingual student body with varied abilities and motivations for learning, and research on promotion and prevention programs that address positive youth development constructs are promising in improving students' school success.

The independent variables in this study were the non-thriving students \((n = 16)\) who participated in the Time Travelers Leadership Program during their seventh grade year and a similar non-participant group of non-thriving seventh graders \((n = 10)\). The dependent variables were the students' fall 2009 pretest and spring 2010 posttest Developmental Assets and their sixth grade and seventh grade core class (English, reading, math, science, and social studies) grade point average and number of behavior referrals.
The students' Developmental Assets were measured by the Developmental Assets Profile (DAP), a 58-question self-reporting survey instrument that was standardized on 2,410 young people eleven to eighteen years of age across the United States in 2002.

This study may offer insight into the best use of available funding for programs for at-risk youth. Given the study outcomes, school districts may choose to support intervention programs that focus on building students’ Developmental Assets. Successful intervention programs that target students’ Developmental Assets have potential to become important strategies for not only keeping students in school, but for closing achievement gaps.
Acknowledgements

In one of my first doctoral classes while we were learning about the dissertation process, Dr. Kay Keiser told us to focus on the journey and not the destination. I remembered feeling daunted by this journey, but because of so many supportive people in my life, I have been able to create a piece of research of which I am proud.

First, I would like to thank Dr. Kay Keiser, my advisor and committee chair, who is an inspiring researcher and writer. Throughout this process, she has encouraged me, provided valuable feedback and insights, and made this project a valuable learning experience. I also want to thank my other dissertation committee members, Dr. Larry Dlugosh, Dr. Neal Grandgenett, Dr. Peter Smith, and Dr. Jeanne Surface, as well as University of Nebraska-Omaha faculty members who have provided support and teaching along the way: Dr. Karen Hayes, Dr. John Hill, Dr. Laura Schulte, and Dr. Dick Christie.

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Chapter 1

Introduction

Schools are facing the unprecedented challenge to educate a multicultural and multilingual student body with varied abilities and motivations for learning. Many of these students are so negatively affected by societal influences, family problems, or other external factors that they come to school with significant issues that must be addressed before they are even ready to learn. The behavioral repertoire for too many students includes inattention and disruption in class, the denigration of school values, feelings of distrust and suspicion of school, and low levels of academic motivation and interest (Wehlage, 2001). These students who have withdrawn from school are often referred to as “at-risk.” They are at-risk of complete school drop-out, and they are not growing as they need to academically, socially, and emotionally to become productive adults (Wehlage, 2001).

Each fall, these at-risk students quickly stand out in their new teachers’ classrooms. Their disengagement results in poor grades, and in spite of myriad intervention efforts, many of these students are still failing at the end of the school year. With the knowledge that poor academic achievement at age 14 is the strongest predictor of dropping out of school before completing tenth grade, disheartened middle school teachers send eighth graders who are failing academically to high school (Battin-Pearson et al., 2000).

At-risk students are well-defined (Battin-Pearson et al., 2000; Finn & Rock, 1997; Wehlage, 2001; Wehlage, Rutter, Smith, Lesko, & Fernandez, 1989). The concept of risk is the idea that exposure to particular conditions, or risk factors, increases the likelihood
that an individual will experience adverse consequences (Finn & Rock, 1997). Group status characteristics associated with academic difficulty or dropping out of school, such as coming from a low-income home or a home where English is not the primary language, are well-established risk factors in terms of academic outcomes (Finn & Rock, 1997). It is assumed that a better understanding of the background characteristics shared by this group will allow educators to develop interventions that help these students succeed. However, research on relatively fixed attributes of students, such as family and social background, does not produce implications for practice among educators. What we need to discover is what it is about school that produces failure and negative experiences for the at-risk as well as what institutional characteristics and interventions can produce success and positive experiences for these students (Archambault, Janosz, Morizot, & Pagani, 2009; Wehlage et al.,1989).

A student’s membership in a group associated with academic failure does not automatically doom the student to such a fate, and studying the behaviors of successful students is useful when considering interventions for at-risk youth. For achieving students, risk factors are not also accompanied by risky behaviors that create impediments to learning, such as not attending to the teacher or not completing class assignments. These students are deemed “resilient”, meaning that they have successfully adapted to life tasks in the face of social disadvantage or highly adverse conditions (Finn & Rock, 1997; Luthar & Cicchetti, 2000; Masten, 2001; Masten & Coatsworth, 1998; Masten & Powell, 2003).

Norman Garmezy and Emmy Werner were pioneers in the study of the concept of resilience. Garmezy used epidemiology to uncover how problems that develop during
childhood might be prevented. In the early 1970’s, he studied the competence in children at risk due to parental mental illness and other risk factors, including poverty and stressful life experiences (Garmezy, 1991). After Garmezy uncovered the risks and protective factors that help define resilience, he created tools to look at systems that support the development of resilience (Masten & Powell, 2003).

Emmy Werner and Ruth Smith lead a seminal study of 698 infants in Kauai, Hawaii—the island’s entire birth cohort in 1955 (Werner & Smith, 1989). In this 40 year longitudinal study, Werner and Smith (1989) found that protective factors make a more profound impact on the life course of children who grow up under adverse conditions than do specific factors or life events.

Beyond the observation of good adaptation, Garmezy, Werner, and Smith recognized that resilience in individual development had the potential to inform policy, prevention programs, and interventions (Masten & Powell, 2003). Unlike status characteristics, the behavior characteristics that make students resilient may be malleable, meaning that educators may be able to create interventions that reinforce the behaviors that lead to academic success (Finn & Rock, 1997; Luthar & Cicchetti, 2000; Masten, 2001; Masten & Coatsworth, 1998).

A focus on the plasticity of human development and the idea that youth are resources to be developed instead of problems to be managed is a shift from the deficit perspective that monopolizes research on at-risk youth (Theokas et al., 2005). This new paradigm considers the strengths, competencies, and contributions that youth can make and ways to provide resources and supports in the environment that will maximize healthy development (Theokas et al., 2005). From this paradigm that focuses on
engaging youth in their own development comes the term “thriving”, which is related to the concept of resilience.

Thriving is a concept denoting a change or a process; it is not a trait (a behavior that does not vary across time and place) or a state (a status describing behaviors that are representative of a person at only one time or place). Thriving is representative of an active individual who is functioning across time and place to interact with an active context in manners that enhance both person and setting (Theokas et al., 2005, p. 117).

The Search Institute, an independent nonprofit organization that works to provide leadership, knowledge, and resources to promote healthy children, youth, and communities, has done extensive research on the concept of thriving, and this research has brought forth seven thriving indicators, or signs of healthy development: school success, leadership, helping others, maintenance of physical health, delay of gratification, valuing diversity, and overcoming adversity (Scales, Benson, Leffert, & Blyth, 2000). Along with conducting research on resilience, prevention, and adolescent development, the Search Institute has used these thriving indicators to study the relationships, opportunities, competencies, values, and self-perceptions that youth need to succeed (Scales & Leffert, 2004). The Search Institute’s framework of 40 Developmental Assets is born out of this research, which has cumulatively involved more than two million sixth through twelfth grade students in approximately 3,000 U.S. communities since 1990 (Scales & Leffert, 2004). These assets are defined as “important relationships, skills, opportunities, and values that help guide adolescents away from risk behaviors, foster resilience, and promote thriving” (Scales, Benson, Roehlkepartain, Sesma, & van
External assets comprise a set of experiences and relationships that adults and peers provide for young people: Support; Empowerment; Boundaries and Expectations; and Constructive Use of Time (Scales et al., 2005). Internal assets comprise a set of individual qualities that help the young person become successfully autonomous: Commitment to Learning; Positive Values; Social Competencies; and Positive Identity (Scales et al., 2005).

These Developmental Assets are more predictive of thriving behaviors than demographic variables, including socioeconomic status, age, or gender (Scales et al., 2000; Scales & Leffert, 2004; Scales et al., 2005; Theokas et al., 2005). For example, regardless of racial or ethnic designation, students who were asset-rich (31-40 assets), were five to 12 times less likely than asset-depleted students (0-10 assets) to have indicators of thriving behaviors, such as succeeding in school (Scales & Leffert, 2004). A study of poor, urban high school students found that the higher the number of assets, the less those students reported engaging in high-risk patterns of behavior and the more they reported thriving behaviors (Scales & Leffert, 2004). In this study, moving from 0-10 assets to 11-20 assets was associated with a 52% increase in the number of thriving behaviors these youth reported (Scales & Leffert, 2004).

Developmental Assets have been linked to increased academic achievement as measured by students’ grade point average (G.P.A.) (Scales et al., 2000; Scales & Leffert, 2004; Scales et al., 2005). For example, Scales and Leffert (2004) found that the greater the number of Developmental Assets in grades 7-9, the higher the grade point average (G.P.A.) in grades 10-12. Students show a decline in assets in middle school, and from a practical sense, if school-based youth development strategies can simply help students
maintain their prior asset levels, subsequent grade point average (G.P.A.) will be positively affected.

Typically, when the goal is to increase students’ academic achievement, parents and educators look for improvement in the students’ grades. Interventions that are academically focused then follow, such as after school homework tutoring. However, students actually do best when they, their parents, and their teachers focus on the intrinsic rewards of learning more than the extrinsic rewards of getting good grades (Scales & Leffert, 2004). Asset research “clearly suggests that a focus on grades and doing better than others in school can be a particularly powerful negative influence at the middle school level, depressing a young person’s self-esteem, interest in school, and academic achievement” (Scales & Leffert, 2004, p.134).

An alternative to simply focusing on improving grades is to plan interventions that target students’ Developmental Assets. In fact, two assets show significant contributions to school success across all racial-ethnic groups: Achievement Motivation and School Engagement (Scales et al., 2000). School Engagement (Young person is actively engaged in learning) and Bonding to School (Young person cares about his or her school) are closely related and they are the focus of this study (Scales et al., 2000).

As a middle school principal, I am dispirited by the fact that educators are so good at recognizing our non-thriving youth but we are so poor at creating and implementing successful preventative programs for these students. When we hear about adolescent suicide, alcohol abuse, school drop-out, and the like, we ask ourselves who bears the blame for these students’ actions. Is it a poor home life, Internet chat rooms, negative peer influence, or living in poverty that was the cause? Instead of pointing a finger, we
can find the answer in five essential resources that every young person needs and deserves, America’s Promise to our youth: (1) Ongoing relationships with caring adults; (2) Safe places with structured activities outside of school; (3) A healthy start to life and a future; (4) An effective education that teaches marketable skills; and (5) Opportunities to help others through community service (Scales et al., 2000). What if these students had spent time in an after school program designed to build their assets rather than in Internet chat rooms? What if they had been encouraged to see themselves as leaders, to volunteer and give something back to their communities, and to create a future story for themselves? Would it have made a difference?

The purpose of this study was to determine the impact of the Time Travelers Leadership Program, an after school intervention program, on non-thriving seventh graders' Developmental Assets, academic achievement, and behavior.

The following research questions were utilized to examine the relationship between students' participation in the Time Travelers Leadership Program and their Developmental Assets as measured by their Developmental Assets Profile, their academic achievement as measured by their grade point average (G.P.A.) in their core academic classes, and their behavior as measured by their behavior referrals.

Research Questions

Research question #1. Do non-thriving students in the Time Travelers Leadership Program exhibit Developmental Assets categories in the "good" or "excellent" range as indicated by the fall 2009 Developmental Assets Profile?
Research question #2. Do non-thriving non-participant students exhibit Developmental Assets categories in the "good" or "excellent" range as indicated by the fall 2009 Developmental Assets Profile?

Research question #3. Is there a difference in student Developmental Assets between seventh grade non-thriving participants (Time Travelers) and seventh grade non-thriving non-participants as determined by the Developmental Assets Profile pretest (seventh grade fall) and the posttest (seventh grade spring) for the Developmental Assets Categories:

a. Support
b. Empowerment
c. Boundaries and Expectations
d. Constructive Use of Time
e. Commitment to Learning
f. Positive Values
g. Social Competencies
h. Positive Identity

Research question #4. Is there a difference in student academic success between seventh grade non-thriving participants (Time Travelers) and seventh grade non-thriving non-participants as determined by grade point average (G.P.A.) pretest (sixth grade) and posttest (seventh grade) for the core subjects?

Research question #5. Is there a difference in student behavior between seventh grade non-thriving participants (Time Travelers) and seventh grade non-thriving non-
participants as determined by behavior office referrals pretest (sixth grade) and posttest (seventh grade)?

**Definition of Terms**

**At-risk youth.** At-risk youth are disengaged from school and are not growing as they need to academically, socially, and emotionally to become productive adults (Wehlage, 2001). These students are at-risk of school failure and drop-out.

**Behavior office referrals.** Behavior office referrals are when a student's behavior at school is serious enough to require intervention by a school administrator and school consequences as outlined in the school code of conduct. School code of conduct infractions include the following: Pushing, Shoving or Related Noninjurious Behaviors; Fighting; Physical Assault; Physical Injury to District Employees, Volunteers, and Students; Use of Threats or Intimidation; Firearms, Explosives and Weapons; Sexual Assault or Attempted Sexual Assault; Sexual Contact; Sexual Harassment; Harassment; Bullying; Hazing; Possession of Alcohol or Drugs; Distribution of Alcohol or Drugs; Possession, Use, and Transportation of Medications; Under the Influence of Alcohol or Drugs; Exposure to Bodily Fluids; Tobacco; Possession or Use of Fireworks; Public Indecency; Profanity or Obscenity; Disparaging Language/Symbolism; Secret Organizations/Gangs; Damage to Property; Theft/Larceny; False Alarm or Report; Computers; Truancy; Gambling; Dishonesty; Cheating or Plagiarism; Insubordination; Disruptive Behavior; Nuisance Items; False Complaints; Noncompliance with Code Yellow or Code Red; Student Identification; and Repeated Offenses (Millard Public Schools, 2009-2010).
Behavioral engagement. Behavioral engagement is represented by doing school work and following school rules (Fredericks, Blumenfeld, & Paris, 2004).

Bonding to school. Bonding to school is a concept of school connectedness derived from social development theory. Bonding to school refers to emotionally close relationships to adults or peers in the school domain as well as behavioral engagement and investment in school work and academic achievement (Finn & Rock, 1997).


Cognitive engagement. Cognitive engagement describes students’ motivation to do well in school and their active involvement in the learning. (Fredericks et al., 2004).

Commitment to Learning. Commitment to Learning encompasses the following Developmental Assets: Achievement Motivation, School Engagement, Homework, Bonding to School, and Reading for Pleasure (Scales & Leffert, 2004).

Connection to school. Connection to school is a broad construct that encompasses self-reported happiness, belonging, safety, and closeness to others at school (Ozer, Wolf, & Kong, 2008; Ozer, 2005).

Constructive Use of Time. Constructive Use of Time encompasses the following Developmental Assets: Creative Activities, Youth Programs, Religious Community, and Time at Home (Scales, & Leffert, 2004).

Core Subjects. For the purpose of this study, core subjects are English, math, reading, science, and social studies.
**Developmental Assets.** Developmental Assets are those relationships, opportunities, values, and skills that, when present in the lives of youth, make young people less likely to become involved in risky behaviors and more likely to be successful in school, relationships, and life in general (Scales & Leffert, 2004).

**Emotional engagement.** Emotional engagement is the students’ identification with the institution, or their degree of bonding to school (Fredericks et al., 2004).

**Empowerment.** Empowerment encompasses the following Developmental Assets: Community Values Youth, Youth as Resources, Service to Others, and Safety (Scales, & Leffert, 2004).

**Grade Point Average (G.P.A.).** Grade Point Average "reflects the educational growth of the student in relationship to his/her ability and achievement" (Millard Central Middle School, 2009-2010, p. 9). A system of 1, 2, 3, 4, and 5 is used, with a “1” being superior and “5” representing failure. The grading scale for the Millard Public Schools is as follows: 93% - 100% = 1; 85% – 92% = 2; 77% - 84% = 3; 69% - 76% = 4; 68 and below = 5. Grade Point Average for core classes (English, math, reading, science, and social studies) will be used for this study, and this will represent the student's average in these classes on a 4.0 scale.

**Hexter.** A hexter is a six-week grading term.

**Identification with school.** Identification with school is students’ feelings of belongingness and valuing school (Voelkl, 1996, 1997).

**Intervention flowchart.** Intervention flowchart is a programmatic system of determining students who need academic and/or behavioral intervention. Every six weeks, each teaching team (science, social studies, English, reading, and math teachers
who teach the same students) meets to discuss interventions for students who have 4s and 5s on their report card. The teachers determine if the problem is academic, behavioral, or social/emotional, and then they plan an intervention to help the student succeed. The intervention is applied for the next hexter, or six week period, and then the teachers reevaluate and adjust as needed.

**Middle school.** Middle school is a school whose students are between the ages of 10 and 15, and the school's organization, curriculum, pedagogy, and programs are based upon the developmental readiness, needs, and interests of young adolescents (National Middle School Association, 2003).

**Non-thriving.** For the purpose of this study, non-thriving is students who have been referred by their teachers per the school's intervention flowchart for academic and/or behavioral intervention. Non-thriving students in the Time Travelers Leadership Program have been referred by their teachers for intervention and have participated in a variety of academic-focused interventions, but they are continuing to earn 4s and 5s on their report card.


**Positive Values.** Positive Values encompasses the following Developmental Assets: Caring, Equality and Social Justice, Integrity, Honesty, Responsibility, and Restraint (Scales & Leffert, 2004).
**Resilience.** Resilience is a dynamic process wherein individuals display positive adaptation despite experiences of significant adversity or trauma (Luthar & Cicchetti, 2000).

**Search Institute.** "Search Institute is an independent nonprofit organization whose mission is to provide leadership, knowledge, and resources to promote healthy children, youth, and communities" (Search Institute, 2010, p. 1).

**School belonging.** School belonging is defined as a sense of acceptance, inclusion, and connection with peers, teachers, and school (Goodenow, 1993).

**School connectedness.** School connectedness is a construct related to school belonging. School connectedness focuses on the affective components, whereas school belonging includes both affective and cognitive components in considering connections with school (McMahon, Parnes, Keys, & Viola, 2008).

**Social Competencies.** Social Competencies encompasses the following Developmental Assets: Planning and Decision-Making, Interpersonal Competence, Cultural Competence, Resistance Skills, and Peaceful Conflict Resolution (Scales & Leffert, 2004).

**Support.** Support encompasses the following Developmental Assets: Family Support, Positive Family Communication, Other Adult Relationships, Caring Neighborhood, Caring School Climate, and Parent Involvement in School (Scales & Leffert, 2004).

**Thriving.** Thriving is a concept denoting a change or a process; it is not a trait (a behavior that does not vary across time and place) or a state (a status describing behaviors that are representative of a person at only one time or place). Thriving is
representative of an active individual who is functioning across time and place to interact with an active context in manners that enhance both person and setting” (Theokas et al., 2005, p. 117). For the purpose of this study, thriving indicates students who have not been referred by their teachers for academic and/or behavioral intervention.

**Time Travelers Leadership Program.** Time Travelers Leadership Program is an after school leadership program for seventh grade students. The intent of the program is to increase students’ engagement and bonding to school and thereby improve their academic achievement and school behavior.

**Assumptions**

In this study, it is assumed that unlike relatively fixed attributes of students, such as family and social background, student engagement is malleable. Schools can provide interventions that increase students’ engagement. At the research school, all students participated in an all-school Developmental Asset building program during their sixth grade and seventh grade years that was intended to increase students’ school engagement. This study specifically focuses on the impact of a leadership program for at-risk youth called the Time Travelers Leadership Program on the Developmental Assets growth, academic achievement, and behavior of non-thriving seventh grade students. Four teacher leaders who are passionate about working with at-risk youth were selected to run the Time Travelers Leadership Program, which was highly supported by the school principal. In addition to professional development related to the school-wide focus on the 40 Developmental Assets, the Time Travelers Leadership Program teachers participated in professional development and planning sessions with the school principal once every
six weeks throughout the school year. These sessions were focused on research related to increasing students’ engagement in school.

**Limitations of the Study**

This study is limited to one school in a suburban district. The study subjects \( n = 16 \) represented a real world naturally formed sample. However, the small number of participants could skew the statistical results and limit generalizing the study findings. Additionally, the limited diversity of the students in the study makes it difficult to generalize success of interventions to more racially and socioeconomically diverse settings. Finally, the students self-selected to participate in the Time Travelers Leadership Program, so study results cannot be generalized to programs that are required by teachers, parents, or some other criteria.

**Delimitations of the Study**

The study was delimited to seventh grade students who were not thriving academically and behaviorally in a suburban school district and who were in attendance during the 2008-2009 and 2009-2010 school years at the research school.

**Significance of the Study**

This study contributes to research, practice, and policy. The study is of significant interest to educators and school district officials as they consider interventions for students at-risk of school failure and/or dropout.

**Contribution to research.** The review of professional literature suggests one of the most widespread problems facing educators today is the emotional and physical withdraw of students from school. These students who have withdrawn from school are often referred to as “at-risk.” They are at-risk of complete school drop-out, and they are
not growing as they need to academically, socially, and emotionally to become productive adults.

Although the "at-risk" are well defined in the literature, successful interventions are not. Interventions focused on increasing students’ engagement and bonding to school are promising because unlike socioeconomic status or race, engagement is malleable. Although there is a great deal of research on behavioral engagement and achievement, research has not capitalized on the potential of engagement as a multidimensional construct that encompasses behavior, emotion, and cognition.

**Contribution to practice.** School administrators and district officials may use this research to design intervention programs for at-risk youth. Typically, intervention programs focus on academic interventions without addressing the development of the whole child. More attention needs to be given to the influence that schools have on a student’s decision to drop out of school.

**Contribution to policy.** The results of this study may offer insight into the best use of available funding for programs for at-risk youth. Given the study outcomes, school districts may choose to support intervention programs that focus on building students’ Developmental Assets. Successful intervention programs that target students’ Developmental Assets have potential to become important strategies for not only keeping students in school, but for closing achievement gaps.

**Outline of the Study**

The literature review relevant to this research study is presented in Chapter 2. This chapter reviews the professional literature related to Developmental Assets, students’ bonding to school, and qualities of successful intervention programs that
promote student resiliency. Chapter 3 describes the research design, methodology, independent variables, dependent variables, and procedures that will be used to gather and analyze the data from the study. This includes a detailed synthesis of the participants, a comprehensive list of the dependent variables, the dependent measures, and the data analysis used to statistically determine if the null hypothesis is rejected for each research question. Chapter 4 presents an analysis of the data generated from this study. Finally, Chapter 5 discusses interpretations of the findings, conclusions, and recommendations for further study.
Chapter 2

Review of Literature

A focus on the plasticity of human development and the idea that youth are resources to be developed instead of problems to be managed is a new paradigm that considers the strengths, competencies, and contributions that youth can make and ways to provide resources and supports that will maximize healthy development. Research on relatively fixed attributes of students, such as family and social background, does not produce implications for practice among educators. What we need to discover is what institutional characteristics and interventions can produce success and positive experiences for students who are not thriving in school.

Resilience

The recognition and study of resilient children has overturned many negative assumptions and deficit-focused models about the development of children growing up under the threat of disadvantage and diversity (Cowen, 1991; Gager & Elias, 1997; Hall-Lande, Eisenberg, Christenson, & Neumark-Sztainer, 2007; Luthar, 1999; Luthar & Cicchetti, 2000; Luthar, Cicchetti, & Becker, 2000; Masten, 2001; Masten & Coatsworth, 1998; Rutter, 1999; Stevens & Griffin, 2001; Tiet et al., 1998). Early images of resilience implied that there was something special about these children, often described as invulnerable or invincible; however, resilience appears to be a common phenomenon that results from the operation of basic human adaptational systems. Resilience refers to a class of phenomena characterized by "good outcomes in spite of serious threats to adaptation or development" (Masten, 2001, p. 228). Resilience is a two-dimensional construct that requires two kinds of judgments. The first judgment addresses adversity,
which typically encompasses negative life circumstances that are known to be statistically associated with adjustment difficulties (Luthar, 1999; Luthar & Cicchetti, 2000; Luthar, Cicchetti, & Becker, 2000; Masten, 2001; Masten & Coatsworth, 1998; Rutter, 1999). Individuals are not considered resilient if there has never been a significant threat to their development. The second judgment involves positive adaptation or success at meeting stage-salient developmental tasks (Luthar, 1999; Luthar & Cicchetti, 2000; Luthar, Cicchetti, & Becker, 2000; Masten, 2001; Masten & Coatsworth, 1998; Rutter, 1999).

The philosophy of resilience, unlike risk, is to determine what contributes to a successful or well-adjusted child. Risk gradients can be inverted to create an "asset" gradient showing that high levels of assets serve as a protection between the young person and the adverse life situations (Cowen, 1991; Gager & Eliasm, 1997; Hall-Lande et al., 2007; Luthar, 1999; Luthar & Cicchetti, 2000; Luthar, Cicchetti, & Becker, 2000; Masten, 2001; Masten & Coatsworth, 1998; Rutter, 1999; Scales et al., 2000; Scales & Leffert, 2004; Scales et al., 2005). These protective factors modify the effects of risk in a positive direction.

Rather than narrowly focusing on preventing the problems of adolescents, the Developmental Assets Framework identifies the kinds of positive connections and qualities necessary for healthy growth (Scales et al., 2000; Scales & Leffert, 2004; Scales et al., 2005). These assets are defined as “important relationships, skills, opportunities, and values that help guide adolescents away from risk behaviors, foster resilience, and promote thriving” (Scales et al., 2005, p. 693). Young people's orientation to school has such a comprehensive impact on them that it is the principal focus of the assets. In fact,
two assets show significant contributions to school success across all racial-ethnic groups: Achievement Motivation and School Engagement (Scales et al., 2000). Bonding to School (Young person cares about his or her school) and School Engagement (Young person is actively engaged in learning) are closely related and they are the focus of this study (Scales et al., 2000).

**Bonding to School**

**School and the future.** The construct of bonding to school is two-dimensional. The first dimension is an internal sense that the school is important to one’s personal experiences and future (Anderman, 2002; Finn & Rock, 1997; Goodenow, 1993). A student has bonded to school when he or she has incorporated it as a significant part of his or her self-concept and lifestyle (Voelkl, 1997). Attachment theory, control theory, and the social development model are three child and adolescent development theories that play a central role for school bonding.

Attachment theory suggests that interactions between parents and children establish a model for how the child forms social connections to others (Catalano, Haggerty, Oesterle, Fleming, & Hawkins, 2004). Bonding is a key to developing the capacity for motivated behavior, and attachment to adults other than a child’s parents has positive effects on the child’s resilience to adversity (Catalano et al., 2004). Bonding to school promotes healthy development because school is a place where bonding to positive adults may occur (Catalano et al., 2004).

The school social bond is related to attachment theory in that unsatisfying social interactions in school prevents students from developing the components of the school bond: attachment (caring about others in school and their opinions and expectations),
commitment (valuing educational goals), involvement (participating in school-related activities), and belief (accepting school rules as fair and consistently enforced) (Jenkins, 1997). Therefore, bonding adolescents to school is an important step in reducing school delinquency as defined by school crime, school misconduct, and school nonattendance (Jenkins, 1997; Finn & Rock, 1997).

Social control theory states that bonding within a socialization unit like a school consists of four elements: (1) involvement with the unit, (2) attachment or affective relationships, (3) investment or commitment to the unit, and (4) belief in the values of the unit (Hirschi, 1969). Involvement in beneficial activities leaves little time for adolescents to get into trouble, and attachment promotes a sense of membership and a reluctance to disappoint (Zill, 1995). Commitment to conventional institutions and traditional career pathways makes it less likely that adolescents will engage in behavior that might endanger their chances of fulfilling their aspirations (Zill, 1995). Once these bonds are strongly established, they function to control or inhibit deviant behavior because those with ties to conventional institutions are most likely to both internalize conventional beliefs and have the most to lose upon being labeled a deviant (Hirschi, 1969).

School bonding is linked to juvenile delinquency as related to social control theory. The relationship between school attachment and delinquency is stronger for students from the lower socioeconomic class as compared to middle and upper class (Battistich, Soloman, Kim, Watson, & Schaps, 1995; Liska & Reed, 1985). Additionally, Liska and Reed (1985) found a statistically significant effect of school attachment on delinquency for African Americans but not for Caucasian students.
Social development theory suggests that school bonding is created by socialization processes that include opportunities for involvement; actual involvement; teaching of social, emotional, and cognitive competencies; and recognition for performance and effort (Catalano et al., 2004). Similar to the social control theory, the social development perspective suggests that once bonds are strongly established, they inhibit behavior inconsistent with the norms and values of the school (Catalano et al., 2004). Increased school bonding from the social development perspective has been correlated with higher levels in school achievement and G.P.A., even in students with disabilities (Catalano et al., 2004; Hawkins, Guo, Hill, Battin-Pearson, & Abbott, 2001; McMahon et al., 2008).

**School and belonging.** The second dimension of the school bond is a sense of belonging. A sense of belonging is a necessary precondition to higher needs, such as the desire for knowledge, and this basic human need is found in all cultures (Baumeister & Leary, 1995; Maslow, 1968). Human beings are fundamentally and pervasively motivated by a need to belong, and many aspects of human culture are directly and functionally linked to enabling people to satisfy the psychological need to belong (Baumeister & Leary, 1995). This sense of belonging and acceptance is especially critical during the adolescent years when young people are searching for their identity (Goodenow, 1993). School belonging may be described by the constructs of school membership, identification with school, and connection to school.

**School membership.** School membership is much more than technical enrollment in the school. It means that students have established a social bond between themselves, the adults in the school, and the norms governing the institution (Wehlage et al., 1989).
Failure to attain a sense of membership in the school as a social system may result in lowered motivation, less active engagement, and ultimately diminished academic achievement (Goodenow, 1993; Goodenow & Grady, 1993; Wehlage et al., 1989).

The construct of school membership is identical to social control theory in that school membership requires students to meet four conditions of social bonding: attachment, commitment, involvement, and belief (Hirschi, 1969; Wehlage, 1989). School membership is established through a reciprocal relationship between teachers and students (Wehlage, 1989). Students and teachers exchange commitments. Teachers create an environment where there are positive and respectful relations between adults and students, where they express concern for students, and they provide the supports needed for the students to excel (Wehlage, 1989). Students, in return, are engaged in their learning and are positive and respectful toward adults and peers (Wehlage, 1989).

Using the Psychological Sense of School Membership Scale with middle school students, Goodenow (1993) found gender differences like those in similar studies; girls expressed more of a sense of school belonging and motivation than boys (Goodenow & Grady, 1993; Scales & Leffert, 2004; Voelkl, 1996; Voelkl, 1997). Goodenow and Grady (1993) had several additional findings using this scale. Central to these findings was an association between a psychological sense of membership and motivational outcomes (Goodenow & Grady, 1993). School belonging accounted for students’ expectancy for academic success and the value they placed on academic work. Expecting to be academically successful was the result of students’ belief in their own abilities as well as their belief in supportive resources.
Identification with school. Like the construct of school membership, identification with school describes a student's feelings of belonging. The Identification with School Questionnaire measures two components of identification with school—belongingness and valuing school (Voelkl, 1996, 1997) developed.

Belongingness is represented by feelings that one is a significant member of the school community, is accepted and respected in school, has a sense of inclusion in school, and includes school as part of one’s self-definition. Valuing school is represented by students’ assessment of the general importance of school and of the utility of everyday schooling for one’s future success; that is, ‘valuing’ denotes that the youngster regards school as an important institution in society, feels that the importance of what is learned in class is important in its own right, and feels that school is important in obtaining future employment (Voelkl, 1997, p. 762-763).

A student who disidentifies with school does not feel this sense of valuing and belonging.

Voelkl (1997) investigated the antecedents of identification with school among eighth grade students with the perspective that students’ perception of identification with school is the result of numerous interactions and experiences of success or failure that accrue over the years. The study found that patterns of school behavior and achievement are cyclical and lead to the development of students’ perceptions of bonding to school (Voelkl, 1997). Likewise, Finn & Rock (1997) found that students who habitually participate in school are likely to develop feelings of identification with school, which in turn predisposes them to participate further in school-related activities, and these behaviors result in positive student outcomes, such as good grades. Without this cycle, a
pattern of school failure, feelings of negativity toward school, and eventual withdrawal are probable (Finn & Rock, 1997).

In two different studies, Voelkl (1996, 1997) found a relationship between ethnicity and identification with school, and her findings were consistent with studies on the Engagement and Bonding to School developmental assets (Scales & Leffert, 2004). On average, African American students exhibited higher degrees of identification with school than did their Caucasian counterparts (Voelkl, 1996, 1997). A statistically significant interaction was also found between gender and race (Voelkl, 1996, 1997). White males as a group were least identified with school and female students had higher identification with school than males (Voelkl, 1996, 1997). African American students as a whole did not disidentify with school (Voelkl, 1996, 1997).

Mickelson (1990) studied this paradox of African Americans’ identification with school and frequently poor academic achievement. He found that all students hold two sets of attitudes toward schooling. One set of attitudes are abstract and are based on the idea that education leads to opportunity. The other set of attitudes are concrete, meaning that they reflect the realities that people experience with respect to returns on education. Adults whose job returns are commensurate with their education generally have children who hold positive beliefs about education and demonstrate high achievement to match, and children of working and minority adults have more pessimistic concrete attitudes toward schooling. Mickelson’s (1990) research showed that concrete attitudes toward education predict academic achievement.

**Connection to school.** Similar to identification with school, connection to school is a broad construct that encompasses self-reported happiness, belonging, safety, and
closeness to others at school, as well being treated fairly by teachers (Ozer, 2005; Ozer et al., 2008). Connection to school is related to students’ desire to be known on a personal level and the distinction between being cared about as a student versus as a person (Ozer, 2005; Ozer et al., 2008). Many adolescents struggle with identifying experiences that make them feel like they belong or feel part of their school, but they have a great deal to say about their relationships with teachers. This may point to the fact that a sense of connection to school is more than a specific event or experience but a cumulative feeling (Ozer et al., 2008). Adolescents’ perceptions of their relationships at school are a predictor of other outcomes, such as academic achievement (Battistich et al., 1995; Ozer, 2005; Ozer et al., 2008; Roeser, Midgley, & Urdan, 1996).

School connectedness is related to school size, racial segregation, and individual characteristics. Students in smaller schools feel more connected to school than students in larger schools, and school connectedness is typically relatively high in racially or ethnically segregated schools (McNeely, Nonnemaker, & Blum, 2002). Students who participate in extracurricular activities and receive higher grades feel more attached to school, and students often feel less attached to school as they grow older (McNeely et al., 2002).

**School Engagement**

The Developmental Asset “School Engagement” is closely related to the Developmental Asset “Bonding with School”, and both assets are in the "Commitment to Learning" category of the Developmental Assets Framework (Scales & Leffert, 2004). Engagement is multi-dimensional, and it can be described as behavioral, emotional, or cognitive (Archambault et al., 2009; Fredericks et al., 2004). Behavioral engagement is
represented by doing school work and following school rules. Emotional engagement is the students’ identification with the institution or their degree of bonding to school. Cognitive engagement is about students’ motivation to do well in school and their active involvement in the learning (Archambault et al., 2009; Fredricks et al., 2004).

Research on emotional engagement is related to that on student attitudes and interest. For example, a study by Skinner and Belmont (1993) reported that teachers’ involvement with individual students had the most powerful impact on their perceptions of the teacher. There is a direct link between students’ perceptions of teachers’ support, student engagement, and academic performance and commitment (Klem &Connell, 2004; Ryan & Patrick, 2001; Skinner & Belmont, 1993). Klem and Connell (2004) found that middle school students were almost three times more likely to report engagement if they experienced highly supportive teacher relationships, and students with higher levels of reported engagement were 75% more likely to achieve high levels of academic performance. Furthermore, studies have found a positive link between students’ beliefs that teachers care about them, value them, and have personal relationships with them and a whole range of factors, including interest and enjoyment in schoolwork, expectancies of success, positive academic self-concept, and less disruptiveness in the classroom (Fraser & Fisher, 1982; Fredricks et al., 2004; Klem & Connell, 2004; Ryan & Patrick, 2001; Skinner & Belmont, 1993).

Cognitive engagement is related to self-regulated learning and motivational goals. Pintrich and deGroot (1990) developed a theoretical framework for conceptualizing student motivation. This model consists of an expectancy component (student beliefs about their ability to succeed), a value component (student’s goals, interest in the task and
beliefs about its importance), and an affective component (students’ emotional reactions to the task). Their study of seventh grade students found that self-efficacy was positively related to cognitive engagement and performance. Students who were more cognitively engaged used self-regulatory strategies, and self-regulation was the best predictor of academic performance (Pintrich & de Groot, 1990).

**Positive Youth Development Programs**

It is well-documented that the constructs of school bonding and school engagement are critical to students' academic achievement. Traditional school-based interventions are categorical, meaning that they target specific problems rather than the underlying social and emotional causes of students' lack of success, such as their bond to school. However, youth development practitioners, policy makers, and prevention scientists call for expanding programs beyond a single problem-behavior focus and for considering program effects on a range of positive and problem behaviors (Catalano et al., 2004; Lane, Beebe-Frankenberger, Lambros, & Pierson, 2001). Many youth outcomes, both positive and negative, are affected by the same risk and protective factors. These groups are calling for interventions that involve several social domains. Programs concentrating solely on preventing specific youth problems typically have been unable to document any long-term effects, and piecemeal services from a variety of educational, mental health, and social service agencies are unlikely to yield the types of concerted, organized efforts that resilience programs require (Christenson & Thurlow, 2004; Doll & Lyon, 1998; Scales & Leffert, 2004; Scales et al., 2005).

Positive youth development programs are approaches that seek to address youth development constructs, such as bonding, resilience, self-efficacy, positive identity, and
belief in the future (Catalano et al., 2004; Fleming et al., 2005; Hester et al., 2004; Shannon & James, 1992). Catalano et al. (2004) identified 25 programs that incorporated positive youth development constructs into universal or selective approaches, had strong evaluation designs, had an acceptable standard of statistical proof, provided adequate methodological detail to allow an independent assessment of the study's soundness, and produced evidence of significant effects on youth's behavioral outcomes. Although a broad range of strategies produced these results, the themes common to success involved methods to strengthen social, emotional, behavioral, cognitive, and moral competencies; build self-efficacy; shape messages from family and community about clear standards for youth behavior; increase healthy bonding with adults and peers; expand opportunities and recognition for youth; provide structure and consistency in program delivery; and intervene with youth for at least nine months or longer (Catalano et al., 2004). These school-based prevention and youth development approaches were successful because they enhanced students' personal and social assets and improved the school-community environment (Catalano et al., 2004).

Promotion and prevention programs that address positive youth development constructs are making a difference in other well-evaluated studies (Bry, 1982; Christenson & Thurlow, 2004; Guthrie, Guthrie, & van Heusden, 1990; Hanlon, Simon, O'Grady, Carswell, & Callaman, 2009; Lovelace & Salah, 2002; Mouton, 1996; Simon-Thomas, 2001). Christenson and Thurlow (2004) reviewed 45 prevention and intervention studies from 1983-2000, most of which were implemented with secondary students (sixth through twelfth grade) with a history of poor academic performance, poor attendance, and teacher referral for supplemental support. Similarities identified among
the interventions included their personal-affective focus that later shifted to an academic focus and their efforts to address alterable variables such as poor grades. The interventions that yielded moderate to large effects on at least one dependent variable provided tutoring, counseling, and mentoring; they emphasized creating caring environments and relationships; and they offered community-service opportunities (Christenson & Thurlow, 2004). Personalization of education was an essential component of these programs. Adults involved strived to understand the nature of the academic, social, and personal problems affecting students, they built relationships with the students, and they communicated the relevance of education to the students' interests and future endeavors (Christenson & Thurlow, 2004).

**The Middle School Years**

A great emphasis on school reform is on grades K-3, and getting students off to a good start is important; however, research generally shows little or no impact from early intervention beyond the third grade (Pogrow, 2000). International comparisons show American students doing well by grade four but poorly by grade eight, and this problem is most perverse for disadvantaged students (Pogrow, 2000). The period of young adolescence is critically important because it is during these critical ages that youth are most vulnerable and their relationships with peer groups and adults have a substantial impact on their persistence in education and participation in risky behaviors (Luthar & Cicchetti, 2000; Rutter, 1999; Stevens & Griffin, 2001). Given this and the fact that disengagement from school is a long process, it is essential that positive youth development programs are in place for adolescents, and especially those most at-risk. Critical considerations in intervention program planning are providing opportunities for students to have meaningful participation; a focus on behavioral variables that are
alterable; fostering students' connection to school; a focus on student engagement and sense of belonging at school; and motivation to learn, progress in school, and the value students place on school and learning (Bry, 1982; Christenson & Thurlow, 2004; Hanlon et al., 2009; Simon-Thomas, 2001).

Related to the value students place on school and learning is students' plans for postsecondary education. Just having plans for higher educational aspiration is a good predictor of positive student adjustment (Tiet et al., 1998). In fact, the effect of having plans for postsecondary education was found to be three times stronger than the effect on socioeconomic status on actual enrollment in college or other postsecondary education (Scales & Leffert, 2004). Intervention programs can create a future orientation, an atmosphere of expectation for college, through field trips, internships, and mentoring that allows students to learn more about fields of interest to them while strengthening connections between curriculum and the real world (Guthrie et al., 1990).

Engaging all middle school students, but especially non-thriving students, in after school programming is important because this is the critical period during which the majority of risky behavior occurs (Brown & Evans, 2002; Shernoff & Vandell, 2007; Scales et al., 2000; Zill, 1995). Engagement in after school activities that reinforce socially acceptable behaviors protect youth from at-risk development trajectories (Brown & Evans, 2002; Shernoff & Vandell, 2007; Scales et al., 2000; Zill, 1995). Participation in all types of engagement in community life declines significantly from middle school to high school, just at a time when young adolescents need increased connections and opportunities to play meaningful roles in their environments (National Middle School Association, 2003). Time spent in youth programs has such a pervasive positive
influence that it is a meaningful predictor of five of seven thriving outcomes (Brown & Evans, 2002; Brown & Evans, 2005; Scales et al., 2000).

**Intervention Design/Evaluation**

For interventions that are developed within the resilience paradigm, Luthar & Cichetti (2000) summarized 10 guiding principles: (1) interventions must have a strong basis in theory; (2) interventions must have a strong basis in theory and research on the particular group being targeted; (3) efforts should be directed not only toward the reduction of negative outcomes or maladjustment among targeted groups but also toward the promotion of positive adaptation; (4) interventions must be designed to capitalize on students' strengths; (5) interventions should target protective processes that operate across multiple levels of influence (i.e. community; family); (6) interventions must have a strong developmental focus; (7) the contextual relevance of the intervention strategies must be ensured; (8) intervention efforts should aim at fostering services that eventually become self-sustaining; (9) when possible, data from intervention groups should be compared with those of appropriate comparison groups; and (10) there must be careful documentation and evaluation. An emphasis in program design should be on enrichment and prevention as opposed to treatment services for alleviating problems (Lane et al., 2001; Luthar & Cicchetti, 2000).

Treatment integrity, or treatment fidelity, is crucial for replication and evaluation of interventions (Lane et al., 2001). High quality teacher implementation and support and leadership of the school principal are key determinants of treatment fidelity (Kam, Greenberg, & Walls, 2003). Readiness of the school to implement the intervention is also an important factor (Kam et al., 2003).
The goal of school-based interventions is generalization and maintenance, and too often, generalization across time and setting is "hoped for" rather than "programmed for" (Lane et al., 2001). School-based interventions, such as social skills training, often do not generalize beyond the original training conditions because the training environment is too far removed from the natural setting (Lane et al., 2001).

The power of peer influence to support young adolescents' commitment to prosocial goals and behavior is another important consideration in program design. Early to middle adolescence is a critical period in which youth, in particular high-risk youth, are vulnerable to peer influences (Dishion, Poulin, & Burraston, 2001). The process is bidirectional with peer dynamics influencing the emergence and escalation of problem behavior and, in turn, the problem behavior itself providing a basis for new friendship (Dishion et al., 2001). Deviant peer contagion refers to inadvertent negative effects associated with intervention programs that aggregate peers in the delivery of a therapeutic program (Dishion et al., 2001; Dodge, Dishion, & Lansford, 2006). Characteristics of the child, the peer groups, the broader peer culture, and the leader can alter the impact of group interventions. Low-risk youth with social strengths and supportive family environments are relatively unaffected to moderately deviant peers (Dishion et al., 2001; Dodge et al., 2006). This suggests that low-risk youth might be helpful in intervention group settings without being adversely affected (Dishion et al., 2001; Dodge et al., 2006). The most effective programs are those that integrate the deviant youth with the mainstream nondeviant peers (Dishion et al., 2001; Dodge et al., 2006).

**Time Travelers Leadership Program**
Research on resilience phenomena has changed the nature of the frameworks, goals, assessments, strategies, and evaluations in the fields of prevention and treatment. The Time Travelers Leadership Program addresses youth development constructs, such as bonding, resilience, self-efficacy, positive identity, and belief in the future for a select group of seventh grade students. Any seventh grader can apply to participate in the program, and 35 students are selected based on their application and teacher nomination. The composition of the group is heterogeneous with students who are already proven leaders and excelling academically, students who are meeting school requirements but who have greater potential, and students who are not-thriving in school academically and behaviorally. The students have chosen to participate in the Program and their parents have committed to their child's participation as well.

The student group meets every Tuesday and Thursday throughout the school year from 3-5:30 P.M. Students may attend school extracurricular activities or work on homework with teacher assistance until 4:30, and then at 4:30 "time travel" begins. During this time, the three teacher leaders guide the students through six, six-week (hexter) themed units. During the first unit, "All About Me", the students take the student version of the Gallup Strengthsfinder assessment and they learn about how to focus on their strengths to reach their goals. In addition to reflecting on their strengths, learning styles, and passions, the focus during the first six weeks is to bond the students as a whole group and as part of their smaller "community circles" within the larger group. Each teacher leader has a smaller community circle of about 12 students with whom she meets with individually and as a small group throughout the year. The students participate in fun field trips and they have their first evening parent dinner during which
the group leaders talk about the goals for the year and the students and parents participate in activities that help them share their top Gallup strengths.

The theme for the second hexter is "My Game Plan." During this time, the focus is on the students' future plans. They take interest inventories and brainstorm possible careers. They also research colleges and select three colleges that they will follow throughout the year. The group then creates a college "application" that the each seventh grader in the school will complete before being selected for one of the three chosen colleges. During the next several months, the Time Travelers plan fun activities to help their fellow seventh graders feel what it would be like to be in college (i.e. wear your school's colors; announce a basketball win during the morning announcements, participate in student competitions with their college, etc.). This is the beginning of the work that the Time Travelers do to help them develop that future orientation, while at the same time allowing them to practice collaboration, teamwork, and leadership skills.

During the third hexter, "Making a Difference", the students plan and participate in service projects both at school and in the community. Service to others is considered a "gateway asset", meaning that by focusing just on service, many other assets are built simultaneously (Scales & Leffert, 2004).

Hexter four is entitled "Leadership 24/7". The students continue to bond as a group as they think about negative pressures that they encounter (alcohol, bullying, etc.) and how they can overcome peer pressure and be positive influences on their friends.

During the fifth hexter, "Out and About", the students participate in the culminating activities related to post-secondary education and careers. During this time, they work with community mentors in their areas of interest to learn about their career
path and about how their strengths make them successful in their professions. They visit
community businesses and with their community mentors, they plan a career event for the
entire seventh grade.

During the final hexter of the Time Travelers experience, "Dreamcatchers", the
students create a "future story" for themselves. They reflect on what they have learned
and the friendships that they have made, and they prepare for how they will carry this on
during their 8th grade year.

Throughout the year, the teacher leaders assist the students with academics and
discuss their goals and progress; however, this is not the primary focus like that of several
other after school programs at the research school. The primary focus is to build the
students' Developmental Assets, and in doing so, impact their academic success.

**The Next Layer of Intervention**

The research school has a systematic intervention flowchart for students who are
not academically successful. Every six weeks, teams of teachers and administrators
gather to review and revise intervention plans to ensure that all students are supported.
Myriad academic-focused programs are available and many students are successful
because of them. What has not yet been discovered is how to best help students who do
not respond to these traditional academic interventions. These students may put in their
time in after school detention for not completing their homework, but they are not
motivated to learn, nor do they care about their low grades. What we need to know is
"How do educators help the most non-thriving students succeed?"

The aforementioned literature related to the 40 Developmental Assets Framework
and the constructs of resilience and bonding to school offer promising evidence that a
focus on human relationships and human development when considering interventions for students who are not thriving will produce the kind of transformation schools need to realize higher achievement goals for all students. Students may come to school with a set of demographic characteristics that make them “at-risk”, but they can learn behavioral characteristics that will help them succeed in spite of these demographics. The most effective school-based prevention and youth development approaches are those that enhance students’ personal and social assets and improve the school-community environment (Fleming et al., 2005).
Chapter 3

Methodology

The purpose of this study was to determine the impact of the Time Travelers Leadership Program, an after school intervention program, on non-thriving seventh graders' Developmental Assets, academic achievement, and behavior.

Research Design

The two-group pretest-posttest comparative study design is displayed in the following notation:

Group 1 $X_1$ 0$_1$ $X_2$ 0$_2$

Group 2 $X_1$ 0$_1$ $X_3$ 0$_2$

Group 1 = naturally formed group of non-thriving seventh graders ($n = 16$)

Group 2 = naturally formed group of non-thriving seventh graders ($n = 10$)

$X_1$ = Study constant: All study participants completed sixth grade and seventh grade at the research school and participated in pro-social learning based on the Developmental Assets Framework.

0$_1$ = Study dependent measures #1: Pretest (a) Developmental Assets Profile scale score for (i) Support, (ii) Empowerment, (iii) Boundaries and Expectations, (iv) Constructive Use of Time, (v) Commitment to Learning, (vi) Positive Values, (vii) Social Competencies, and (viii) Positive Identity; (b) Grade Point Average for core academic classes (i) English, (ii) math, (iii) science, (iv) social studies, and (v) reading; (c) reported behavior office referrals.

$X_2$ = Study independent variable #1: Students who are not thriving at school who participated in the Time Travelers Program during the 2009-2010 school year.
X₃ = Study independent variable #2: Students who are not thriving at school who did not participate in the Time Travelers Program during the 2009-2010 school year.

O₂ = Study dependent measures #2: Posttest (a) Developmental Assets Profile scale score for (i) Support, (ii) Empowerment, (iii) Boundaries and Expectations, (iv) Constructive Use of Time, (v) Commitment to Learning, (vi) Positive Values, (vii) Social Competencies, and (viii) Positive Identity; (b) Grade Point Average for core academic classes (i) English, (ii) math, (iii) science, (iv) social studies, and (v) reading; (c) reported behavior office referrals.

Research Questions

Research question #1. Do non-thriving students in the Time Travelers Leadership Program exhibit Developmental Assets categories in the "good" or "excellent" range as indicated by the fall 2009 Developmental Assets Profile?

Research question #2. Do non-thriving non-participant students exhibit Developmental Assets categories in the "good" or "excellent" range as indicated by the fall 2009 Developmental Assets Profile?

Research question #3. Is there a difference in student Developmental Assets between seventh grade non-thriving participants (Time Travelers) and seventh grade non-thriving non-participants as determined by the Developmental Assets Profile pretest (seventh grade fall) and the posttest (seventh grade spring) for the Developmental Assets Categories:

a. Support
b. Empowerment
c. Boundaries and Expectations
d. Constructive Use of Time

e. Commitment to Learning

f. Positive Values

g. Social Competencies

h. Positive Identity

**Research question #4.** Is there a difference in student academic success between seventh grade non-thriving participants (Time Travelers) and seventh grade non-thriving non-participants as determined by grade point average (G.P.A.) pretest (sixth grade) and posttest (seventh grade) for the core subjects?

**Research question #5.** Is there a difference in student behavior between seventh grade non-thriving participants (Time Travelers) and seventh grade non-thriving non-participants as determined by behavior office referrals pretest (sixth grade) and posttest (seventh grade)?

**Participants**

Twenty-six students were in this study. A naturally formed sample of seventh grade students \(n = 16\) were non-thriving students who elected to participate in the Time Travelers Leadership Program during the 2009-2010 school year. The comparison group, a naturally formed sample \(n = 10\), were seventh grade students who are non-thriving but did not elect to participate in the program. All students participated in the all-school Developmental Asset building program during their sixth grade and seventh grade years at the research school.

Figure 1 outlines the demographics of the two groups in this study:
<table>
<thead>
<tr>
<th></th>
<th>Time Travelers</th>
<th>Non-Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>62.5% Females</td>
<td>36.4% Females</td>
</tr>
<tr>
<td></td>
<td>37.5% Males</td>
<td>63.6% Males</td>
</tr>
<tr>
<td>Ethnicity</td>
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<td>81.8% White</td>
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<tr>
<td></td>
<td>25% African American</td>
<td>18.2% African American</td>
</tr>
<tr>
<td>Free/Reduced Priced Lunch</td>
<td>69% Yes</td>
<td>45% Yes</td>
</tr>
<tr>
<td></td>
<td>31% No</td>
<td>55% No</td>
</tr>
<tr>
<td>Special Education</td>
<td>25% Yes</td>
<td>18% Yes</td>
</tr>
<tr>
<td></td>
<td>75% No</td>
<td>82% No</td>
</tr>
</tbody>
</table>

Figure 1

All of the students in this study participated in academic-focused interventions as part of the school's intervention flowchart. The intervention flowchart is a programmatic system of determining students who need academic and/or behavioral intervention.

Every six weeks, each teaching team (science, social studies, English, reading, and math teachers who teach the same students) met to discuss interventions for students who had 4s and 5s on their report card. The teachers determined if the problem was academic, behavioral, or social/emotional, and then they planned an intervention to help the student succeed. The intervention was applied for the next hexter, or six-week period, and then the teachers reevaluated and adjusted as needed. In spite of several hexters of academic interventions, these students continued to have low grades. Because of this, all of the students in the study were invited to participate in the Time Travelers Leadership Program. The comparison group was the students who, based on their lack of success in
academic interventions, could have benefited from the program but they chose not to participate.

Data Collection Procedures

This two-group pretest-posttest comparative study will utilize a naturally formed sample of non-thriving seventh grade students who participated in the Time Travelers Leadership Program during the 2009-2010 school year and a naturally formed sample of non-thriving seventh grade students who did not choose to participate in the Program. The intervention was initiated by the research school and it was completed in May, 2010. All data was collected retrospectively.

The study's researcher collected students' pretest and posttest Developmental Assets scale score in the Asset categories Support, Empowerment, Boundaries and Expectations, Constructive Use of Time, Commitment to Learning, Positive Values, Social Competencies, and Positive Identity; Grade Point Average in core area classes English, math, science, social studies, and reading; and number of behavior referrals for pushing and shoving, disruptive behavior, and insubordination infractions. The participant data was coded and names were not be included. The study's researcher and the university dissertation supervisor were the only people to view the individual identifying information. No identifying information was included in any written descriptions of the study.

Instrument

The Developmental Assets Framework focuses on a set of environmental and psychological strengths that enhance health outcomes for youth based on research that has cumulatively involved more than two million sixth through twelfth grade students in
roughly 3,000 U.S. communities since 1990 (Scales & Leffert, 2004). Although the Developmental Assets Framework is supported by hundreds of scientific studies, the purpose is to not only inform theory and research but to also have practical significance for the mobilization of communities. So that the 40 Assets can easily be described, they have been divided into eight categories that have conceptual integrity (Lerner & Benson, 2003; Scales & Leffert, 2004). The 20 external Assets are grouped into the categories Support, Empowerment, Boundaries and Expectations, and Constructive Use of Time, and the 20 internal Assets are grouped into the categories Commitment to Learning, Positive Values, Social Competencies, and Positive Identity.

The 40 Developmental Assets are assessed in schools using the Developmental Assets Profile (DAP), a valid, reliable 58-question self-reporting survey instrument that was standardized on 2,410 young people eleven to eighteen years of age across the United States in 2002 (Search Institute, 2009). For each question, students select from the following choices: “not at all or rarely”, “somewhat or sometimes”, “very or often”, and “extremely or almost always.” Questions are answered with “not at all or rarely” receive a score of zero. Questions that are answered as “somewhat or sometimes” are given a score of one, and a score of two is indicated if the student selects the “very or often” choice. Finally, a score of three is given if a student selects “extremely or almost always.” The assessment yields quantitative scores for each of the eight asset categories that are compiled into a scale score out of 30. A category score between 0 and 14 is in the "low" range, a score between 15 and 20 is in the "fair" range, a score between 21 and 25 is in the "good" range, and a score between 26 and 30 is in the "excellent" range.

Data Analysis
Descriptive measures were used for Questions 1 and 2. Means and standard deviations for each of the eight Asset categories are displayed in a table. Data for Questions 3, 4, and 5 were analyzed using repeated measures analyses of variance (ANOVA). Independent variables include the within-subjects factor for time with two levels of pretest and posttest for Developmental Assets, Grade Point Average, and for office referrals. The between-subjects factor for group were the Time Travelers Leadership Program participants and the non-participants. Because of the sample size, the alpha for significance level will be .05.
Chapter 4

Results

Purpose of the Study

The purpose of this study was to determine the impact of the Time Travelers Leadership Program, an after school intervention program, on non-thriving seventh graders' Developmental Assets, academic achievement, and behavior. Twenty-six students participated in this study.

Research question #1

Do non-thriving students in the Time Travelers Leadership Program exhibit Developmental Assets categories in the "good" or "excellent" range as indicated by the fall 2009 Developmental Assets Profile?

Among study participants \( (n = 16) \), the mean scores for Support \( (M = 21.19, \ SD = 6.10) \), Constructive Use of Time \( (M = 21.75, \ SD = 5.21) \), Commitment to Learning \( (M = 21.31, \ SD = 6.00) \), and Social Competencies \( (M = 21.25, \ SD = 4.84) \) fell within the "good" range (21-25) as indicated by the fall 2009 Developmental Assets Profile. The remaining Asset categories--Empowerment, Boundaries and Expectations, Positive Values, and Positive Identity--fell within the "fair" range (15-20). Mean scores and standard deviations are displayed in Table 1.

Research question #2

Do non-thriving non-participant students exhibit Developmental Assets categories in the "good" or "excellent" range as indicated by the fall 2009 Developmental Assets Profile?
Among study non-participants \((n = 10)\), the mean score for Boundaries and Expectations \((M = 21.88, SD = 4.59)\) was the only category that fell into the "good" range (21-25) as indicated by the fall 2009 Developmental Assets Profile. The other seven Asset categories fell within the "fair" range (15-20). Mean scores and standard deviations are displayed in Table 2.

**Research question #3**

Is there a difference in student Developmental Assets between seventh grade non-thriving participants (Time Travelers) and seventh grade non-thriving non-participants as determined by the Developmental Assets Profile pretest (seventh grade fall) and the posttest (seventh grade spring) for the Developmental Assets Categories: (a) Support; (b) Empowerment; (c) Boundaries and Expectations; (d) Constructive Use of Time; (e) Commitment to Learning; (f) Positive Values; (g) Social Competencies; (h) Positive Identity?

For Support, there was no statistically significant main effect for time (pretest/posttest), \(F(1, 24) = .966, p = .36\). There was no significant interaction between time (pretest/posttest) and group, \(F(1, 24) = 3.843, p = .06\) and no significant main effect for group, \(F(1, 24) = .564, p = .46\). The ANOVA for Support is displayed in Table 3.

For Empowerment, there was no statistically significant main effect for time (pretest/posttest), \(F(1, 24) = .024, p = .88\). There was no significant interaction between time (pretest/posttest) and group, \(F(1, 24) = 3.731, p = .066\) and no significant main effect for group, \(F(1, 24) = .207, p = .65\). The ANOVA for Empowerment is displayed in Table 4.
For Boundaries and Expectations, there was no statistically significant main effect for time (pretest/posttest), $F(1, 24) = .232, p = .63$. There was a statistically significant interaction between time (pretest/posttest) and group, $F(1, 24) = 8.153, p = .01, d = .71$. There was no significant main effect for group, $F(1, 24) = .224, p = .64$.

The statistically significant interaction indicated that non-participants reported fewer Boundaries and Expectations Assets from the pretest ($M = 21.88, SD = 4.588$) to the posttest ($M = 18.50, SD = 4.885$). The ANOVA for Boundaries and Expectations is displayed in Table 5.

For Constructive Use of Time, there was no statistically significant main effect for time (pretest/posttest), $F(1, 24) = .371, p = .55$. There was no significant interaction between time (pretest/posttest) and group, $F(1, 24) = 4.308, p = .05$ and no significant main effect for group, $F(1, 24) = .183, p = .67$. The ANOVA for Constructive Use of Time is displayed in Table 6.

For Commitment to Learning, there was no statistically significant main effect for time (pretest/posttest), $F(1, 24) = 1.066, p = .31$. There was no significant interaction between time (pretest/posttest) and group, $F(1, 24) = .057, p = .81$ and no significant main effect for group, $F(1, 24) = 1.511, p = .23$. The ANOVA for Commitment to Learning is displayed in Table 7.

For Positive Values, there was no statistically significant main effect for time (pretest/posttest), $F(1, 24) = .304, p = .59$. There was no significant interaction between time (pretest/posttest) and group, $F(1, 24) = .304, p = .59$ and no significant main effect for group, $F(1, 24) = .410, p = .53$. The ANOVA for Positive Values is displayed in Table 8.
For Social Competencies, there was no statistically significant main effect for time (pretest/posttest), $F(1, 24) = .014, p = .91$. There was no significant interaction between time (pretest/posttest) and group, $F(1, 24) = .111, p = .74$ and no significant main effect for group, $F(1, 24) = 1.003, p = .33$. The ANOVA for Social Competencies is displayed in Table 9.

For Positive Identity, there was no statistically significant main effect for time (pretest/posttest), $F(1, 24) = 1.252, p = .27$. There was no significant interaction between time (pretest/posttest) and group, $F(1, 24) = .067, p = .80$ and no significant main effect for group, $F(1, 24) = 1.248, p = .28$. The ANOVA for Positive Identity is displayed in Table 10.

**Research question #4**

Is there a difference in student academic success between seventh grade non-thriving participants (Time Travelers) and seventh grade non-thriving non-participants as determined by grade point average (G.P.A.) pretest (sixth grade) and posttest (seventh grade) for the core subjects?

There was no statistically significant main effect for time (pretest/posttest), $F(1, 24) = 2.973, p = .99$. There was no significant interaction between time (pretest/posttest) and group, $F(1, 24) = .002, p = .97$ and no significant main effect for group, $F(1, 24) = .008, p = .93$. The ANOVA for Grade Point Average (G.P.A.) is displayed in Table 11.

**Research question #5**

Is there a difference in student behavior between seventh grade non-thriving participants (Time Travelers) and seventh grade non-thriving non-participants as determined by behavior office referrals pretest (sixth grade) and posttest (seventh grade)?
There was no statistically significant main effect for time (pretest/posttest), $F(1, 24) = 3.045, p = .09$. There was no significant interaction between time (pretest/posttest) and group, $F(1, 24) = .058, p = .81$ and no significant main effect for group, $F(1, 24) = .100, p = .76$. The ANOVA for Behavior Referrals is displayed in Table 12.

**Summary**

In summary, the results showed that the only statistically significant change in the non-thriving students from the fall 2009 pretest to the spring 2010 posttest as measured by their Developmental Assets, Grade Point Average, and Behavior Referrals was that the nonparticipants reported significantly fewer assets in the Boundaries and Expectations category by the end of their 7th grade year. The following are Boundaries and Expectations Assets: Family Boundaries, School Boundaries, Neighborhood Boundaries, Adult Role Models, Positive Peer Influence, and High Expectations.
Table 1

*Descriptive Statistics for Non-thriving Participants (n = 16)*

**Fall 2009 Developmental Assets Profile Pretest**

<table>
<thead>
<tr>
<th>Asset</th>
<th>M</th>
<th>SD</th>
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<tr>
<td>Support</td>
<td>21.19</td>
<td>6.10</td>
<td>Good</td>
</tr>
<tr>
<td>Empowerment</td>
<td>20.31</td>
<td>4.70</td>
<td>Fair</td>
</tr>
<tr>
<td>Boundaries &amp; Expectations</td>
<td>19.70</td>
<td>4.35</td>
<td>Fair</td>
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<tr>
<td>Constructive Use of Time</td>
<td>21.75</td>
<td>5.21</td>
<td>Good</td>
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<td>Commitment to Learning</td>
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<td>6.00</td>
<td>Good</td>
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<tr>
<td>Positive Values</td>
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<td>4.29</td>
<td>Fair</td>
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<tr>
<td>Social Competencies</td>
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<tr>
<td>Positive Identity</td>
<td>17.94</td>
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<td><strong>Average</strong></td>
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Table 2

*Descriptive Statistics for Non-thriving Non-participants (n = 10)*

*Fall 2009 Developmental Assets Profile Pretest*

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<tr>
<th></th>
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</tr>
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<td>Empowerment</td>
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<td>4.09</td>
<td>Fair</td>
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<td>Boundaries &amp; Expectations</td>
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<td>Positive Values</td>
<td>19.00</td>
<td>4.06</td>
<td>Fair</td>
</tr>
<tr>
<td>Social Competencies</td>
<td>19.10</td>
<td>4.36</td>
<td>Fair</td>
</tr>
<tr>
<td>Positive Identity</td>
<td>19.70</td>
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<td>Fair</td>
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| Average                  | 19.45 | 4.45 | Fair  |
Table 3

**ANOVA for Support**

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<td><strong>Between Subjects</strong></td>
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ns = not significant
Table 4

*ANOVA for Empowerment*

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<td>.024</td>
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*ns = not significant*
Table 5

*ANOVA for Boundaries and Expectations*

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<td>.63</td>
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ns = not significant
Table 6

*ANOVA for Constructive Use of Time*

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*ns = not significant*
Table 7

**ANOVA for Commitment to Learning**

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*ns* = not significant
Table 8

*ANOVA for Positive Values*

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*ns* = not significant
Table 9

**ANOVA for Social Competencies**

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* = not significant
Table 10

*ANOVA for Positive Identity*

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ns = not significant
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*ANOVA for Behavior Referrals*

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ns = not significant
Chapter 5

Conclusions and Discussion

The purpose of this study was to determine the impact of the Time Travelers Leadership Program, an after school intervention program, on non-thriving seventh graders' Developmental Assets, academic achievement, and behavior. Twenty-six students participated in the study.

The Developmental Assets Profile (DAP), a valid, reliable 58-question self-reporting survey instrument was used to measure the study participants' Developmental Asset growth from the fall 2009 pretest to the spring 2010 posttest. The assessment yielded quantitative scores for each of the eight asset categories that were compiled into a scale score out of 30. A category score between 0 and 14 was in the "low" range, a score between 15 and 20 was in the "fair" range, a score between 21 and 25 was in the "good" range, and a score between 26 and 30 was in the "excellent" range.

As a measure of academic achievement, the study participants' cumulative grade point average (G.P.A.) for core classes (English, math, reading, science, and social studies) from their pretest sixth grade year was compared with their postest seventh grade year G.P.A. Finally, the number of behavior referrals in the pretest sixth grade year as compared to the posttest seventh grade year was used to measure change in the study participants' school behavior.

Conclusions

The following conclusions may be drawn from the study for each of the five research questions.

Research question #1
Research question #1 was used to determine whether non-thriving students in the Time Travelers Leadership Program exhibited Developmental Assets categories in the "good" or "excellent" range as indicated by the fall 2009 Developmental Assets Profile.

On the fall 2009 pretest Developmental Assets Profile (DAP), students in the Time Travelers Leadership Program were in the "good" range in the following asset categories: Support ($M = 21.19, SD=6.10$), Constructive Use of Time ($M = 21.75, SD=5.21$), Commitment to Learning ($M = 21.31, SD=6.00$), and Social Competencies ($M = 21.25, SD=4.84$). The other four asset categories were in the "fair" range. None of the asset categories were in the "excellent" range.

**Research question #2**

Research questions #2 was used to determine whether non-thriving non-participant students exhibited Developmental Assets categories in the "good" or "excellent" range as indicated by the fall 2009 Developmental Assets Profile?

On the fall 2009 pretest Developmental Assets Profile (DAP), the non-thriving nonparticipant group was in the "good" range in the Boundaries and Expectations category ($M = 21.88, SD=4.59$). All other asset categories were in the "fair" range. None of the asset categories were in the "excellent" range.

**Research question #3**

Research question #3 was used to determine if there is a difference in student Developmental Assets between seventh grade non-thriving participants (Time Travelers) and seventh grade non-thriving non-participants as determined by the Developmental Assets Profile pretest (seventh grade fall) and the posttest (seventh grade spring) for the Developmental Assets Categories: (a) Support; (b) Empowerment; (c) Boundaries and
Expectations; (d) Constructive Use of Time; (e) Commitment to Learning; (f) Positive Values; (g) Social Competencies; (h) Positive Identity.

In all, the only statistically significant difference identified was that the non-participants reported fewer Boundaries and Expectations Assets from the pretest ($M = 21.88, SD = 4.588$) to the posttest ($M = 18.50, SD = 4.885$).

Although not statistically significant, positive changes did occur from students' pretest to posttest reports in both groups. On the spring 2010 posttest Developmental Assets Profile (DAP), the Time Travelers Leadership Program participants moved up from the "fair" to the "good" range in the Boundaries and Expectations category ($M = 22.10, SD=3.755$). The non-participant group moved up from the "fair" to the "good" range in Support ($M = 21.80, SD = 4.290$) and Positive Identity ($M = 21.00, SD = 5.207$).

**Research question #4**

Research question #4 was used to determine if there a difference in student academic success between seventh grade non-thriving participants (Time Travelers) and seventh grade non-thriving non-participants as determined by grade point average (G.P.A.) pretest (sixth grade) and posttest (seventh grade) for the core subjects.

There was no statistically significant difference between participant students' pretest ($M = 3.025, SD = .5092$) and posttest ($M = 2.89, SD = .66126$) grade point average (G.P.A.), nor was there a statistically significant difference between the nonparticipant students' pretest ($M = 3.010, SD = .4095$) and posttest ($M = 2.868, SD = .50310$) G.P.A.

**Research question #5**

Research question #5 was used to determine whether there was a difference in student behavior between seventh grade non-thriving participants (Time Travelers) and
seventh grade non-thriving non-participants as determined by behavior office referrals pretest (sixth grade) and posttest (seventh grade).

There was no statistically significant difference between participant students' pretest ($M = .62$, $SD = .957$) and posttest ($M = 1.81$, $SD = 4.324$) number of behavior referrals, nor was there a statistically significant difference between the nonparticipant students' pretest ($M = .50$, $SD = .707$) and posttest ($M = 1.40$, $SD = 1.506$) number of behavior referrals.

**Discussion**

Since the 1970's, researchers have recognized that resilience in individual development has the potential to inform policy, prevention programs, and interventions (Masten & Powell, 2003). Although students may have obstacles to success that are out of the school's control, such as coming from a low income family, resiliency research proposes that schools can provide interventions that reinforce the behaviors that lead to academic success (Finn & Rock, 1997; Luthar & Cicchetti, 2000; Masten, 2001; Masten & Coatsworth, 1998).

A focus on youth as resources to be developed is the cornerstone of the 40 Developmental Assets, and this is a hopeful and empowering way for educators and the community to view youth (Scales et al., 2000; Scales & Leffert, 2004; Scales et al., 2005). Extensive asset research shows that Developmental Assets impact adolescents' thriving behaviors, and the intentional building of assets by school personnel and communities has the potential to have a dramatic impact on students' school success (Scales et al., 2000; Scales & Leffert, 2004; Scales et al., 2005).
The average number of assets experienced by young people drops from sixth grade through eleventh grade, with a slight rebound beginning in twelfth grade, and this has important implications for young adolescents during their formative middle school years (Scales et al., 2000; Scales & Leffert, 2004; Scales et al., 2005). Through a school-wide emphasis on the intentional building of Developmental Assets, as well as through programs like the Time Travelers Leadership Program, the research school in this study is focused on reversing this trend. Research results reflect positively on the research school's efforts as the only statistically significant drop in assets was in the Boundaries and Expectations category for the non-participant group.

The asset category Boundaries and Expectations comprises the following assets: Family Boundaries (Family has clear rules and consequences and monitors the young person's whereabouts), School Boundaries (School provides clear rules and consequences), Neighborhood Boundaries (Neighbors take responsibility for monitoring young people's behavior), Adult Role Models (Parents and other adults model responsible behavior), Positive Peer Influence (Young person's best friends model responsible behavior), and High Expectations (Both parents and teachers encourage the young person to do well). While the non-participant research group reported a significant drop in the Boundaries and Expectations assets, the participant group showed an increase from the "fair" to the "good" range in this category. The Time Travelers Leadership Program placed an emphasis on teacher-student and peer relationships as well as high expectations and goal-setting.

**Adult Role Models.** On the end-of-the-year Time Travelers student reflection, numerous students mentioned the caring, supportive teachers and the impact they had on
their success. "I liked having three more teachers to depend on," and "The teachers got to know me and I knew they cared," were typical comments that emphasized the importance of the adult role models in the Program.

This finding is congruent with Werner and Smith's (1989) study that found that among the most frequently encountered positive role models in the lives of resilient children, outside of the family, was a favorite teacher who was not just an instructor for academic skills but also a positive role model. A caring relationship with a teacher gave students the motivation for wanting to succeed. An ethic of caring is not a "program" or "strategy" per se but a way of relating to students and their families that conveys compassion, understanding, respect, and interest. It is also a wellspring from which flow other protective factors.

Klem and Connell (2004) found that middle school students were almost three times more likely to report engagement if they experienced highly supportive teacher relationships, and students with higher levels of reported engagement were 75 % more likely to achieve high levels of academic performance. Furthermore, studies have found a positive link between students’ beliefs that teachers care about them, value them, and have personal relationships with them and a whole range of factors, including interest and enjoyment in schoolwork, expectancies of success, positive academic self-concept, and less disruptiveness in the classroom (Fraser & Fisher, 1982; Fredricks et al., 2004; Hall-Lande et al., 2007; Klem & Connell, 2004; Ryan & Patrick, 2001; Skinner & Belmont, 1993).

The Search Institute Profiles of Student Life: Attitudes and Behaviors survey given to almost 150,000 sixth to twelfth grade youth in 202 communities across the
United States found that only 27% of the youth had the asset Adult Role Models (Scales & Leffert, 2004). Out of the 40 assets, this was the fifth fewest followed by Youth as Resources (26%), Community Values Youth (22%), Reading for Pleasure (22%), and Creative Activities (21%) (Scales & Leffert, 2004).

Positive Peer Influence. The Time Travelers Leadership Program participants were exceedingly positive about the peer relationships that grew out of their participation when they commented on the end-of-the-year reflection. For example, students said, "I grew more respectful and acted more like a role model, so therefore, my attitude rubbed off on my peers. Time Travelers gave them the opportunity to make new friends. I learned that there's a lot more to people than their reputation or how they act when you first meet them. I learned that it doesn't matter who your friends are, just how they treat you. I learned that I can spend my time doing something positive with my friends instead of something negative." The power of peer influence to support young adolescents' commitment to prosocial goals and behavior is another important consideration in program design. Early to middle adolescence is a critical period in which youth, in particular high-risk youth, are vulnerable to peer influences (Dishion et al., 2001). The Time Travelers participants overwhelmingly felt like the Program had a positive impact on the friends they selected, their treatment of peers, and the kinds of activities in which they engaged with peers both at school and in other settings.

High Expectations.

Although the data did not demonstrate a statistically significant change in the participants' G.P.A., on the Time Travelers Leadership Program end-of-the-year reflection, 100% of the participants reported that they were "a little more" or "much
more" successful in school this year as compared to last year. Many students commented on how their attitude changed related to their schoolwork. For example, students said, "When I come to Time Travelers, I do my work and I try instead of just giving up. I learned how to be a true leader and how to help my learning skills become more powerful. Time Travelers affected my attitude towards school by making me realize that I need to work harder in school. I feel supported in school because the teachers here want me to succeed." Rutter (1999) found the most powerful level at which high expectations is conveyed to students is at the relationship level in which the teacher and school staff communicate the message that the student has everything he or she needs to be successful.

The expectancy component for academic success is supported by Pintrich and DeGroot (1990) whose study of seventh grade students found that self-efficacy was positively related to cognitive engagement and performance. Likewise, Goodenow and Grady (1993) found that school belonging accounted for students’ expectancy for academic success and the value they placed on academic work. Expecting to be academically successful was the result of students’ belief in their own abilities as well as their belief in supportive resources (Goodenow & Grady, 1993).

**Positive Identity.** In addition to the impact the Time Travelers Leadership Program had on the students' Boundaries and Expectations Assets, the mean for the asset category Positive Identity increased for the participant group. Positive Identity assets include: Personal Power (Young person feels he or she has control over "things that happen to me."), Self-Esteem (Young person reports having a high self-esteem), Sense of Purpose (Young person reports that "my life has a purpose.", and Positive View of
Personal Future (Young person is optimistic about his or her personal future). These assets, in particular, Positive View of Personal Future, were emphasized in the Time Travelers Leadership Program. The students worked throughout the year to learn about their strengths, to connect with professional community mentors, and to create a "future story" for themselves. A culminating activity was a middle school college simulation that the Time Travelers group planned for the entire seventh grade.

Research supports the importance of students' positive view of their personal future. In fact, just having plans for higher educational aspiration is a good predictor of positive student adjustment (Tiet et al., 1998). The effect of having plans for postsecondary education was found to be three times stronger than the effect of socioeconomic status on actual enrollment in college or other postsecondary education (Scales & Leffert, 2004). Guthrie et al. (1990) found that intervention programs can create a future orientation, an atmosphere of expectation for college, through field trips, internships, and mentoring that allows students to learn more about fields of interest to them while strengthening connections between curriculum and the real world, and this is exactly what the Time Travelers Leadership Program provided.

Related to Positive Identity, the student participants made the following comments on the end-of-the-year reflection: "I feel much better about getting up and going to school than before. Time Travelers made me think about how important my education is. I feel much more positive about myself and others. I'm more confident than I used to be. I learned that I am an amazing leader with a lot of potential."
Implications for practice. This study supports the research that promotion and prevention programs that address positive youth development constructs are most effective (Masten, 2001). Instead of being categorical, interventions should focus on the whole child (Luther & Cicchetti, 2000). Christenson and Thurlow (2004), in their study of successful intervention programs, found that personalization of education was an essential component. Adults involved strived to understand the nature of the academic, social, and personal problems affecting students, they built relationships with the students, and they communicated the relevance of education to the students' interests and future endeavors (Christenson & Thurlow, 2004).

The Asset Framework doesn’t require a new curriculum. It invites program providers to focus on the environment they create for young people and the relationships they build with them. As providers think more intentionally about the places their programs can build assets, those programs will become stronger.

Implications for policy. A great deal of state and federal funding backs early childhood interventions, however, research shows that in spite of this, disadvantaged students fall further and further behind after the third grade, even when the intervention is continued (Pogrow, 2000). A great need in American education reform is for better interventions for students in grades 4-8. The results of this study offer insight into the best use of available funding for programs for at-risk youth. School-based interventions should go beyond academic support and address social and emotional foundational needs for students as well as early intervention and prevention (Pogrow, 2000; Lovelace, 2002).

Implications for further research. A primary goal of school-based intervention research is to create a discrepancy in rates of behaviors, academic or behavioral, between
the baseline and treatment conditions. When this discrepancy is evident, one assumes that the desired behavior has been altered as a function of the intervention. The hope is that the discrepancy will be sustained across time and will generalize to circumstances beyond those in the intervention (Bry, 1982; Lane et al., 2001). Additionally, significant growth academically or emotionally does not happen quickly, especially during the roller-coaster middle school years (Bry, 1982; Ozer et al., 2008). In fact, it is the accumulation of positive experiences that leads to students' feelings of belonging and that school is valuable (Voelkl, 1997).

Longitudinal research studies that follow students through multiple year interventions and then through to high school graduation would show the impact of a longer intervention as well as whether the interventions produced changes that generalize and maintain. For example, a study by Catalano et al. (2004) found that school bonding in grade eight was associated with a decreased chance of dropping out of school before the end of tenth grade.

**Time Travelers Leadership Program success.** This research demonstrates that the participating non-thriving students did not significantly lose assets, which is a success in that it is a reverse of the typical downward trend in middle school. However, the real success of the Program can only be captured by the students: "I truly think I love school. I used to think it was 'okay'. This is my favorite after school activity (honest). I am 100% glad you opened up this opportunity for me. I came here two days per week every week for nine months and I'm still excited about coming here!"
References


APPENDIX A

Institutional Review Board

Board Approval
The IRB approval letter is available upon request:

IRB # 270-10-EX