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Out-of-school time (OST) programs offer a unique opportunity to provide educational supports to high-risk children and youths. The authors describe the utility of applying principles of risk and resilience to the development and evaluation of an OST program. Academic outcomes among participants at the Bridge Project, an OST program located in three urban public housing communities, are presented to illustrate a risk and resilience approach to service delivery. Implications for practice and research are delineated.

KEY WORDS: *academic achievement; children; out-of-school time programs; risk and resilience; youths*

In a seminal article on theory and practice, Polansky (1986) argued for the application of theory to social interventions aimed at children, youths, and families. Though much has changed in the ensuing decades, Polansky's assertion may be truer today than ever before. Unfortunately, in the absence of theory, we have witnessed the development and persistence of numerous incoherent, contradictory social policies and ineffective services for children, youths, and families. Clearly, a unifying theoretical approach would not solve all of the inconsistencies within and across the juvenile justice, health, mental health, substance abuse, education, and developmental disabilities sectors. However, the application of theory to programs and policies for high-risk children and youths would likely reduce service system fragmentation, increase the feasibility and usefulness of outcome research, and perhaps even create upward pressure to encourage policymakers to address service integration.

In this article, we argue for the cross-system adoption of a risk and resilience framework for policies and services that affect high-risk children, youths, and families. First, we explore the risk and resilience framework in some detail and suggest how its adoption might create change in major systems of care. Second, we explain how the framework was useful as a guide to the design and implementation of the Bridge Project, an OST program for high-risk children and youths in three public housing developments in an urban western city. To illustrate the utility of the framework for evaluating outcomes and supporting principles of evidence-based practice, we describe findings from the 2004–05 academic year.

A RISK AND RESILIENCE FRAMEWORK FOR CHILD AND YOUTH SERVICES

U.S. history is marked by broad cyclical swings in social policy and programs aimed at high-risk and troubled children and youths (Bernard, 1992; Jenson & Howard, 1998). Driven by inconsistencies in political ideology and influenced by changes in social norms and economic conditions, policies and interventions for children and youths have undergone vast changes over the past century (Jenson & Fraser, 2006). Nowhere is this propensity more pronounced than in the juvenile justice system (Barton, 2006). To discern the shifts in U.S. social policy aimed at young people, one has only to consider the ideological differences between the values underlying the establishment of the juvenile court in 1899 and the current values undergirding a system that would consider executing a developmentally disabled young person whose crime was committed as a child (Zimring, 2005). A unified framework that informs the direction of programs and policies for high-risk children, youths, and families is necessary to increase the consistency and efficacy of social interventions for young people and parents. A risk and resilience framework holds great promise as such a unifying framework.

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Background

The origins of the risk and resilience framework can be traced to the late 1960s and early 1970s through the work of ecological theorists such as Bronfenbrenner (1979) and Germain (1979). These and other scholars asserted that child and adolescent development is deeply affected by interactions between the biological, psychological, and social characteristics of a child and conditions in her or his family, peer group, school, and community. These ideas were applied during the 1970s and 1980s by professionals in the public health field to help understand and prevent smoking and heart disease (Botvin, 2004). Subsequently, the framework was adapted to efforts aimed at preventing childhood and adolescent problems such as early pregnancy and parenting, delinquency, alcohol and other drug abuse, and violence (Hawkins, Jenson, Catalano, & Lishner, 1988). Adoption of a risk and resilience framework led researchers and policymakers to place greater importance on understanding the wide array of influences that affect children—factors associated with individual, family, social, and community conditions—and that commonly occur in the lives of high-risk and troubled children and youths (Rutter, 1979, 1987). At its core, the risk and resilience framework for ameliorating youth problems considers the presence or absence of risk factors and then identifies protective and resilient traits that help children and youths overcome adverse conditions and function normatively in the face of risk (Fraser, 2004; Jenson & Fraser, 2006).

Elements of the Risk and Resilience Framework

Put succinctly, the risk and resilience framework has three sets of variables. First, *risks* are defined as events, conditions, or experiences that increase the probability, but do not ensure, that a problem will be formed, maintained, or exacerbated (Fraser & Terzian, 2005; Jenson & Fraser, 2006). Risks may appear as a single condition or as a cluster of conditions, and, as noted earlier, they may occur within children, outside children, or as an interaction between children and their environments. In the past two decades, studies have consistently found that the risk factors associated with child and youth problems are remarkably consistent across the problem domains of delinquency (Patterson & Dishion, 1985; Tolan & Guerra, 1994), violence (Howard & Jenson, 1999), alcohol and drug abuse (Hawkins, Catalano, & Miller, 1992; Jenson, 2004), school failure (Richman, Bowen, & Woolley, 2004), and early and unwanted pregnancy (Franklin, Corcoran, & Harris, 2004). Furthermore, these risk factors appear at different levels of influence—in the environment, at the interpersonal level, and within individual children (Jenson & Fraser, 2006).

Second, *protective factors* are individual traits or environmental resources that minimize the effect of risk (Jenson & Fraser, 2006). By this definition, protective factors act to buffer the effect of risks, interrupt the chain of cause and effect (for example, peer rejection, which leads to involvement with antisocial peers, which leads to delinquent and criminal behavior), or block the negative effect of a risk factor altogether (Fraser & Terzian, 2005). Like risks, protective influences can also exist at different levels. For example, at the environmental level caring relationships with adults and social support from non-family individuals can have a positive effect on children, whereas at the interpersonal level attachment to parents and high levels of commitment to school can buffer against many negative forces. Finally, individual traits may provide abilities to adapt positively and overcome many harmful circumstances. Key risk and protective factors for childhood and adolescent problem behaviors are shown in Table 1.

A third element of the risk and protection framework is *resilience*, a child's capacity to adapt successfully in the presence of risk and adversity (Garmezy, 1985; Luthar, 2003; Olsson, Bond, Burns, Vella-Brodrick, & Sawyer, 2003). Resilient traits, such as high intelligence and positive temperament may provide children and youths with the ability to prevail over adversity. Increasingly, experts view resilience as the outcome of an interactive process involving risk and protection. According to Jenson and Fraser (2006), healthy "adaptation—expressed through individual behavior—is interpreted as an interactive process involving the presence or absence, level of exposure, and the strength of the specific risk, protective, and promotive factors present in a person's life" (p. 9). Effective intervention thus requires an understanding of a multilevel framework that incorporates underlying root causes and risk factors for problem behaviors, the protections that can be established to buffer the negative effects of these risks, and efforts to identify and strengthen the innate traits and characteristics of children, youths, and families.

Table 1: Common Risk and Protective Factors for Childhood and Adolescent Problems, by Level of Influence

Risk Factors	Protective Factors
Environmental	Environmental
Laws and norms favorable to antisocial behavior	Opportunities for education, employment, and other prosocial activities
Poverty and economic deprivation	Caring relationships with adults or extended family members
Low economic opportunity	Social support from nonfamily members
Neighborhood disorganization	
Low neighborhood attachment	
Interpersonal and Social	Interpersonal and Social
Family communication and conflict	Attachment to parents
Poor parent–child bonding	Caring relationships with siblings
Poor family management practices	Low parental conflict
Family alcohol and drug use	High levels of commitment to school
School failure	Involvement in conventional activities
Low commitment to school	Belief in prosocial norms and values
Rejection by conforming peer groups	
Association with antisocial peers	
Individual	Individual
Family history of alcoholism	Social and problem-solving skills
Sensation-seeking orientation	Positive attitude
Poor impulse control	Temperament
Attention deficits	High intelligence
Hyperactivity	Low childhood stress

Source: Adapted from Jenson, J. M., & Fraser, M. W. (Eds.). (2006). *Social policy for children and families: A risk and resilience perspective.* Thousand Oaks, CA: Sage Publications.

The risk and resilience framework has great utility because it has the potential of unifying policy and program development across a wide range of service sectors. The framework provides common ground for policymakers and program designers of different ideologies. Those from a problem orientation can identify with a framework that rests on an annunciation of risk; those from a strengths perspective feel at home with the focus on protection and promotion of resilience. The framework can easily cross disciplinary boundaries. Professionals trained in the medical and psychological traditions can focus on the internal dynamics (promoting resilience) of high-risk children while social workers and public health workers can concentrate on the social aspects of children's lives through building external protections. Finally and closely related, is the multisystemic structure of the framework. To illustrate the utility of this framework, we describe how it was used to develop and test an OST program for high-risk children and youths.

THE BRIDGE OST PROJECT: A RISK AND RESILIENCE INTERVENTION FRAMEWORK

The Bridge Project is an OST and summer program located in three public housing complexes of a large western city. From the mid 1990s, the Bridge Project has been guided by the framework and principles of risk and resilience.

Project History and Description

Bridge was created as a partnership between a medium size private university, the city's Public Housing Authority, and a group of civic-minded individuals concerned about escalating negative conditions in the city's public housing complexes. The founders believed that relationships with positive role models and education were the catalysts that would help create positive futures for the poor and immigrant children and their families living in public housing. The Bridge Project was created as a nonprofit direct service program within the organizational structure of a local university and a graduate school of social

Whether through neighborhood betterment projects, scouts, antibullying curriculums, or as a youth volunteer in programs that serve elders in the neighborhood, Bridge participants learn to expand their personal horizons and develop commitments to people and ideas other than themselves and their own welfare.

work. The founders, a group of influential and successful individuals from business and banking, became the Bridge's board of directors, responsible for policy and fundraising. The Graduate School of Social Work provided the program with vision and administration, eventually hiring a specialized professional staff to manage the day-to-day operations of the three centers. The Bridge Project's first component was a scholarship program for college-bound students. Scholarships alone, however, were an ineffective social change intervention because there were few high school graduates in public housing to take advantage of them. Bridge Project staff soon realized the need to focus resources on children at a much younger age to ensure that Bridge students were prepared for college.

Application of Risk, Protection, and Resilience Principles

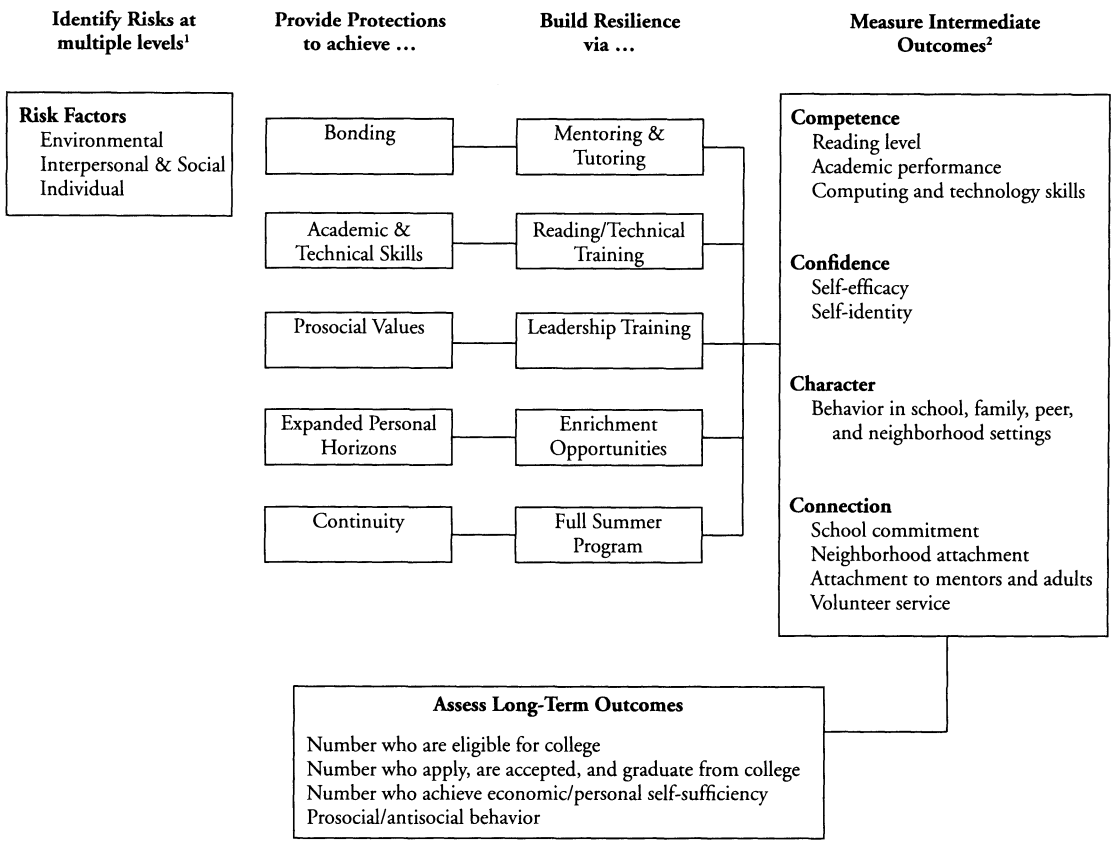
In an effort to design program components that would lead to the desired outcomes—students who were eligible for and accepted by local colleges—we had to understand the risk and protective traits present in the lives of children and youths living in the neighborhoods served by the Bridge Project. First, research showed that these children and youths were living in poverty: all the Bridge families were eligible for subsidized housing, and 60 percent were recipients of Aid to Families with Dependent Children, Medicaid, and Food Stamps (Housing Authority of the City and County of Denver, 1991). Economic opportunities were minimal: 90 percent of adult residents did not have steady and adequate employment. Furthermore, residents in the neighborhood testified to the high rates of family violence, alcohol and drug abuse, and low parent commitment to education. Finally, and most important for older children, official reports and neighborhood surveys revealed that the communities were unsafe and gang dominated, with few or no opportunities for safe OST activities (Piton Foundation, 1991).

Knowledge of these risk factors was used to inform the intervention strategy at Bridge. Clearly, a single university and group of public spirited individuals could not hope to lower the poverty rate among families in public housing or create enough well-paying jobs to move these families into self-sufficiency. But, they could create conditions that would shield their children and cushion them against the most negative neighborhood effects and, at the same time, enable them to find the interests, strengths, and talents that would help them persevere and prevail. This is a logical and seemingly simple set of theoretical ideas, but it encompasses a complex and long-term cognitive, emotional, and social process that is not well understood at this time.

The way in which principles of risk, protection, and resilience guide intervention strategies at the Bridge Project are illustrated in Figure 1. From the beginning, the idea had been to expose children to caring relationships with adults who would support, encourage, guide, and admonish (when necessary). Now, guided by the principles of risk and resilience, a formalized mentoring component was introduced as a program focus. The force of relationship (Perlman, 1979) in the bonding process between children and positive role models is the most powerful protective factor in the Bridge framework. This process takes place after school every day in a tutoring program that focuses on homework and reading activities. It also occurs during outings and meetings between children and youths and their mentors who are part of the mentoring component. The force of relationship is also brought to bear on increasing the academic and technical skills of Bridge students, particularly reading. This is accomplished not only through literacy activities, but also through technical training—computing, building robots, repairing computer hardware, and competing on technology teams—all aimed at maintaining kids' commitment to schooling through fun and enjoyable activities that bring feelings of achievement and success.

Another protective influence in the lives of inner city kids is activities that foster knowledge and understanding of positive norms and values and that develop a sense of responsibility to, as well as respect for, others. Whether through neighborhood betterment projects, scouts, antibullying curriculums, or as a youth volunteer in programs that serve elders in the neighborhood, Bridge participants learn to

Figure 1: Principles of Risk and Resilience in Bridge Project Intervention and Evaluation Components



[1]Adapted from Jenson & Fraser (2006).
[2]Adapted from Lerner et al. (2000).

expand their personal horizons and develop commitments to people and ideas other than themselves and their own welfare. Activities that enable children to practice ethics in everyday life are the best defense against the influence of antisocial peers. Likewise, children who have never been out of their neighborhood or climbed a mountain or attended a concert cannot imagine themselves in a different place or participating in different activities. Woven through individual mentoring and group activities are opportunities for Bridge Project participants to experience different cultures and environments. Finally, interventions at the Bridge Project include program elements that provide continuity and protect children during the summer—the three months they are not in school.

Assessing the Program

Evaluation of OST interventions has historically been complicated by the presence of significant variation in the nature and quality of OST programs (Little & Harris, 2003). Variation in program design has also limited understanding of the relationship between exposure to specific program components and educational and behavioral outcomes. Furthermore, many programs do not systematically measure dosage or the intensity of interventions received by children. The risk and resilience framework helps overcome some of these limitations; it extends beyond the implementation of program components to evaluate the effectiveness of these components in reducing risk and promoting resilience. Specifically, the framework enables the research team

to deconstruct the program so as to identify and quantify the program's components and their effect on social and behavioral outcomes.

To date, evaluation efforts in the Bridge program have focused on assessing risk and protective factors and evaluating the effects of selected interventions on educational and behavioral outcomes. Consequently, collecting data has been essential at multiple levels—individuals, family, and community. A pretest–posttest design based on the academic school calendar (August to May) is used to assess individual and educational outcomes and to evaluate levels of risk and protective factors associated with positive youth development. Three types of measures are used. First, data assessing participation in antisocial behaviors such as delinquency and substance use are collected through self-report surveys. Standarized instruments are administered at the start and at the end of the school year, and, finally, process measures evaluating Bridge kids' levels of program participation and school achievement are collected and stored in the Bridge database. As noted in Figure 1, process and outcome measures are conceptualized as intermediate and long-term outcomes. These outcomes with their measures are presented in Table 2.

Intermediate Outcomes. Intermediate outcomes are organized by using the conceptual domains of competence, confidence, character, and connection designed originally by Lerner and colleagues (Lerner, Fisher, & Weinberg, 2000). These four domains provide an organizing framework for assessing the effects of Bridge Project interventions.

Competence outcomes include reading, academic, and computer and technology skills. Academic performance outcomes are assessed by official school grades and by results from standardized tests administered annually in public schools. The Flynt-Cooter Reading Inventory for the Classroom (Fountas & Pinnell, 1996) is used to evaluate Bridge kids' reading levels. This inventory analyzes participants' reading level through a retelling and miscue analysis of fiction and nonfiction passages. Self-reports of computer and technology skills and attitudes are assessed by the Technology Skills Assessment Inventory (Anthony, 2005).

The confidence outcomes include indicators of self-efficacy and self-esteem. The Morgan-Jinks Student Efficacy Scale (MJSES) (Jinks & Morgan, 1996, 1999) is a 30-item scale that evaluates students' perceptions of their academic performance, ability to succeed in school assignments, and attitudes toward school. The MJSES contains three subscales—Talent, Context, and Effort—each of which assesses a distinct area of academic self-efficacy. The Rosenberg Self-Esteem Scale (Rosenberg, 1989) is used to evaluate student levels of self-esteem in the fall and spring of each academic year.

Table 2: Bridge Project Outcomes and Measures, by Domain

Measurement Domain	Outcomes	Measures
Intermediate outcomes		
Competence	Reading level	Flynt-Cooter Reading Inventory[a]
	Academic performance	Academic grades and standardized test scores
	Computing and technology skills	Technology Skills Assessment Inventory[b]
Confidence	Self-efficacy	Morgan-Jinks Student Efficacy Scale[c]
	Self-identity	Rosenberg Self-Esteem Scale[d]
Character	Behavior in school, family, peer, and neighborhood settings	Risk, Protection, and Antisocial Conduct Inventory[e]
Connection	School commitment	Risk, Protection, and Antisocial Conduct Inventory
	Neighborhood attachment	Risk, Protection, and Antisocial Conduct Inventory
	Attachment to mentors and adults	Risk, Protection, and Antisocial Conduct Inventory
	Volunteer service	Bridge program participation database
Long-term outcomes	College enrollment and graduation	Bridge Project Follow-up Survey[f]
	Job and career	Bridge Project Follow-up Survey
	Economic/personal self-sufficiency	Bridge Project Follow-up Survey
	Prosocial/antisocial behavior	Bridge Project Follow-up Survey; official records

[a](Fountas & Pinnell, 1996).
[b](Anthony, 2005).
[c](Jinks & Morgan, 1999)
[d](Rosenberg, 1989).
[e](Jenson & Anthony, 2003)
[f](Jenson, 2006).

Character and connection outcomes are assessed using the Risk, Protection, and Antisocial Conduct Inventory (RPACI) (Jenson & Anthony, 2003). Outcomes include self-reported indicators of antisocial behavior, school commitment, neighborhood attachment, volunteer service, and attachment to project mentors and pro-social adults. The RPACI is a self-report survey administered in a personal interview setting.

Long-Term Outcomes. Long-term outcomes are the degree to which Bridge kids attain economic and personal self-sufficiency as young adults and achieve a sense of well-being. These outcomes are measured using self-report and official record indicators of antisocial conduct, college enrollment, college graduation, and economic self-sufficiency. Efforts to assess long-term outcomes are in an initial stage and are not reported here.

The following example illustrates how the risk and resilience framework can be applied to evaluation in programs such as the Bridge Project. The risk and resilience framework offers a systematic approach to the complexity of evaluation in OST programs. Using findings from the 2004–05 academic year, we detail specific evaluation components informed by the risk and resilience framework.

AN ILLUSTRATIVE OUTCOME EVALUATION

We noted earlier that participants complete pretest and posttest interviews and standardized instruments each school year. Each youth is assigned a unique identification number at the time of registration and subsequently tracked for participation and exposure (measured in standardized units) in each program component. Selected intermediate outcomes from the competence, confidence, character, and connection measurement domains are reported below. Because program participation varies across intervention elements, sample sizes pertaining to data sources vary by level of participation in a particular intervention component.

Intermediate Outcomes, by Measurement Domain

Competence. Reading scores are assessed with the Flynt-Cooter Reading Inventory for the Classroom (Fountas & Pinnell, 1996). A pretest was administered to youths in fall 2004 to establish a nonfiction reading baseline; assessments were repeated in spring 2005 to evaluate changes in reading skills. Sixty youths completed both reading assessments. The average grade level was 5.02 (SD = 2.3), and the average age for youths was 9.77 (SD = 2.0). Fifty-eight percent (n = 35) of the sample was female and 42 percent (n = 25) was male. The participants were racially and ethnically diverse; 48 percent (n = 29) were Latino/Hispanic, 22 percent (n = 13) were African American, 17 percent (n = 10) were Asian/Pacific Islander, and 13 percent (n = 8) were of mixed or other ethnicity.

Paired t tests were used to assess changes in reading levels between pretest and posttest. As shown in Table 3, results indicate a significant improvement in reading scores from fall to spring of the academic year. Bridge participants' reading scores on the Flynt-Cooter Reading Inventory increased from 2.7 (SD = 1.9) at pretest to 3.8 (SD = 1.9) at the end of the school year. It is important to note that 75 percent (n = 45) of the youths experienced at least a one grade-level improvement in reading scores between 2004 and 2005. A subset of participants (n = 35) attended a summer reading program aimed at maintaining reading improvements shown during the school year, and these youths demonstrated significant improvement in reading skills between May and August. Participants' scores increased from 2.5 (SD = 2.0) to 3.2 (SD = 2.2) over the summer months.

School grades and factors associated with academic performance were also analyzed as an indicator of competence. Data from MJSES (Jinks & Morgan, 1999) self-report items assessing academic grades in math, science, reading, and social studies were used in this analysis. A total of 128 youths completed pretest and posttest assessments of the MJSES. Fifty percent (n = 64) of youths were Latino/ Hispanic, 23 percent (n = 29) were Asian/Pacific Islander, 19 percent (n = 24) were African American, and 8 percent (n = 11) belonged to a mixed or other ethnic group. Fifty-six percent (n = 72) of the participants were girls and 44 percent (n = 56) were boys. The average age of youths in the sample was 11.2 years (SD = 2.4).

Individual responses to the four academic areas were ranked (5) = A, (4) = B, (3) = C, (2) = D, and (1) = F and then summed to create an aggregate score. The aggregated score for the sample was 15.9 (SD = 3.25), or approximately a B-/C+ average across the four subject areas. Summed self-reports of grades in math, science, reading, and social studies were regressed on participants' total MJSES scores at posttest and a measure of program participation to assess the

Table 3: Reading Scores, Self-Efficacy, and Risk and Protective Factors among Bridge Project Participants

	Reading Assessment Scores[a]				
	Pretest		Posttest		
Reading Scores	***M***	***SD***	***M***	***SD***	***t***
Reading skill assessment					
Academic year	2.7	(1.9)	3.8	(1.9)	−10.76***
Summer	2.5	(2.0)	3.2	(2.2)	−6.58***
	Student Self-Efficacy Scores[b]				
	Pretest		Posttest		
Morgan-Jinks Scales	***M***	***SD***	***M***	***SD***	***t***
All MJSES items	94.2	(10.2)	99.6	(11.8)	−5.50***
Talent subscale	37.4	(5.8)	41.2	(6.7)	−6.55***
Context subscale	44.3	(4.9)	45.3	(5.1)	−1.71
	Risk and Protective Factor Items[c]				
	Pretest		Posttest		
Risk and Protection Items	***M***	***SD***	***M***	***SD***	***t***
Risk factors					
Friends' antisocial behavior	2.7	(3.4)	2.1	(2.6)	1.14
Relational aggression	1.4	(2.0)	2.6	(0.8)	−2.83*
Attitudes toward antisocial behavior	8.3	(2.8)	8.1	(3.1)	−.36
Community disorganization	8.1	(3.3)	7.8	(2.9)	.45
Family management practices	13.7	(2.3)	14.5	(2.9)	−1.42
Protective factors					
Commitment to school	11.8	(2.7)	13.8	(3.6)	−2.70**
Belief in the moral order	14.2	(1.9)	14.3	(2.1)	−.06
Family attachment	13.3	(2.7)	12.6	(2.9)	1.36
Self-esteem	11.8	(2.6)	11.5	(2.3)	.77
Rewards for prosocial involvement					
Family	13.3	(2.2)	13.4	(1.9)	−.26
School	13.8	(2.8)	14.1	(2.5)	−.49
Opportunities for prosocial involvement					
Family	10.8	(1.8)	10.0	(2.3)	2.09*
School	16.6	(2.7)	17.2	(2.6)	−1.26

Note: MJSES = Morgan-Jinks Student Efficacy Scale.
[a]Items are from the Flynt-Cooter Reading Inventory for the Classroom (Fountas & Pinnell, 1996). $n = 60$.
[b]Items are from the Morgan-Jinks Student Efficacy Scale (Jinks & Morgan, 1999). $n = 128$.
[c]Items are from the Risk, Protection, and Antisocial Conduct Inventory (Jenson & Anthony, 2003). $n = 37$.
*$p < .05$. **$p < .01$.

relationship among self-efficacy, program exposure, and academic performance. Age and gender were also included in the analysis. Program participation was measured by calculating the average monthly participation in the core program components of tutoring, homework help, and technology training for each participant. Participation in each program is measured in hourly units; thus, monthly hours were summed for each participant to obtain a program exposure measure. Participants averaged approximately seven hours of participation per month in core program components ($SD = 6.5$). Results indicate that higher levels of program participation and self-efficacy are associated with higher grades for youths in the sample (see Table 4).

Confidence. Self-efficacy was used as a primary measure of participants' confidence to perform successfully in academic settings. Data from the MJSES (Jinks & Morgan, 1999) were used to examine the effects of Bridge Project participation on self-efficacy. The sample for this exploratory analysis was identical to that used in the analysis of MJSES pretest and

Table 4: Regression of Academic Grades on Self-Efficacy, Individual Characteristics, and Program Participation

	B	SE	t	p
Self-efficacy total score	.196	.033	5.941	.000
Age	–.124	.153	–.811	.420
Gender (male = 0, female = 1)	.903	.626	1.444	.153
Monthly program participation	.109	.048	2.276	.025

Note: Items for the self-efficacy total score are from the Morgan-Jinks Student Efficacy Scale (Jinks & Morgan, 1999). $n = 128$. $R^2 = .421$

posttest scores described earlier. Alpha coefficients for the Talent, Context, and Effort subscales of the MJSES were .84, .71, and .55 respectively. The low reliability on the Effort subscale precluded use of this measure in the analysis. Changes in participants' overall self-efficacy scores and Talent and Context scales between September and May were analyzed with paired comparisons. As shown in Table 3, students' total and Talent subscale scores increased significantly between pretest and posttest.

Character and Connection. Pretest and posttest in-person interviews were conducted to gain a better understanding of the prevalence of risk and protective factors among Bridge participants. Items from the previously described RPACI were used to assess risk factors of antisocial behavior by peers, involvement in relational aggression, attitudes toward antisocial conduct, community disorganization, and perceived family management practices. Protective factors included school commitment, values and beliefs, family attachment, self-esteem, and perceived opportunities and rewards for prosocial involvement at school and in the family. Paired comparisons were conducted with a sample of 37 Bridge participants in elementary and middle school (grades 3 to 8) to assess changes in levels of risk and protection between pretest and posttest. Youths were, on average, 11 years of age ($M = 10.9$, $SD = 1.8$) and in the fifth grade. Fifty-seven percent ($n = 21$) of youths were girls and 43 percent ($n=16$) were boys. Thirty percent ($n = 11$) of youths were Latino/Hispanic, 27 percent ($n=7$) were Asian/Pacific Islander, 23 percent ($n = 9$) identified as mixed ethnicity or other, and 20 percent ($n = 10$) were African American.

The RPACI uses several Likert scales to assess participants' perceptions and attitudes toward influences in their lives. For ease in interpretation, items are coded so that increases in the level of a variable or score indicate an increase in a risk or protective factor and decreases reveal a decrease in a factor. For example, the risk factor assessing perceptions of community disorganization decreased from 8.1 ($SD = 3.3$) at pretest to 7.8 ($SD = 2.9$) at posttest, indicating participants reported lower perceptions of community disorganization at the end of the academic year. In some cases, risk factors such as involvement in relational aggression increased significantly over the course of the academic year as the youths grew older. Levels of protection also showed differing patterns. For example, mean scores for the protective factor assessing school commitment increased significantly from 11.8 ($SD = 2.7$) at pretest to 13.8 ($SD = 3.6$) at posttest, whereas levels of protection for family attachment declined slightly. In many cases, risk and protective factors remained the same throughout the academic year. Additional results are reported in Table 3.

DISCUSSION AND APPLICATIONS TO PRACTICE

The development and initial evaluation of the Bridge Project suggests that a risk and resilience framework may be a promising approach to creating, implementing, and testing out-of-school interventions. Understanding and, when possible, decreasing risk exposure while identifying and supporting critical protective factors as they influence intermediate and long-term outcomes underscores the approach. Our results indicate that high-risk youths participating in an OST program based on principles of risk and resilience demonstrated increases in academic self-efficacy. In turn, high levels of efficacy among youths were related to positive educational achievement. In addition, a high percentage of youths were able to improve their reading skills during the academic year and maintain these skills over the summer months, a skill set that is related to a host of other positive outcomes in childhood and adolescence. Other measured risk and protective factors showed less change, a finding that may be due to a lack of longitudinal data for the study sample.

As we have noted, evaluation of the effects of OST programs such as the Bridge Project is complicated by a number of factors. Although all children living in the three public housing complexes are recruited to participate in the Bridge Project, we might expect a self-selection bias for those students who consistently participate. Furthermore, obtaining objective outcome measurements in addition to self-report is

critical to evaluate the effects of the intervention. Reading scores were obtained and used in the analysis; however, missing patterns in standardized test scores and grade reports limited our ability to use these additional objective measures. Efforts to improve access to such information from the school district are currently underway.

We have learned a great deal from our efforts to construct a thoughtful program framework at Bridge; a few of the lessons learned are pertinent. First, building and maintaining the academic skills of at-risk children through middle and high school certainly requires supplementary out-of-school academic instruction, but this is not enough. The integration of instructional programming with basic social casework is critical if the family and neighborhood barriers to children's learning are going to be minimized. The objective is to partner with families to promote stability and positive communication and to minimize unreasonable familial expectations and demands on participating youths so they may concentrate on learning. Second, the location of programming is critical. To be successful, out-of school programs must be a safe urban oasis, close to school and very close to home, so that parents have trust that their children are out of harm's way when in transit. And third, effective programs target the whole child. Although academic learning is the most important component, development of the cultural, social, civic, and physical life of at-risk children provides the pathways to expanded horizons and enhanced opportunities in the long term. OST programs that target a single developmental domain are missing many of the opportunities to protect children and propel them into different futures.

Significant advances have occurred in the design and evaluation of OST programs for high-risk youths (American Youth Policy Forum, 2006). Yet, few OST programs use theoretical or conceptual frameworks to guide their work. Our experience suggests that a risk and resilience framework affords program planners the opportunity to systematically target and evaluate the effects of OST interventions aimed at high-risk children and youths. This framework has allowed practitioners and researchers at Bridge to identify prevalent risk factors at program sites and, in turn, to combat these risks with strengths-oriented interventions that seek to increase protection and resilience. Evaluating Bridge kids' progress on an annual basis has provided useful feedback to staff and to teachers in public schools located near the program.

The ongoing effort to assess the effects of Bridge interventions on children's lives illustrates the type of evaluation and research sorely needed to enhance the knowledge base associated with OST programs. Evaluating program outcomes for children raised in conditions of poverty is challenging. Children are differentially exposed to intervention components and families often move during the course of a school year. Randomized designs are difficult to implement, rendering generalization of study findings difficult. Future program and research efforts at the Bridge Project will include greater specification and measurement of intervention components and experimental tests of the efficacy of the program. OST programs such as the Bridge Project offer tremendous promise for enhancing and maintaining academic performance as well as helping high-risk children and youths in poor neighborhoods achieve positive outcomes and healthy development. SW

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