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Fostering Individual and School Resilience: When Students at Risk Move from Receivers to Givers

Jane L. Newman and John Dantzer

As a low-income black male, the odds were stacked against me growing up. From an absent biological father who took no interest in his son to a mother drowned in work to support her family, the idea of a college degree was not a reality for me. When I was in fifth grade, my self-esteem and any sense of purpose that I had as a 10-year-old boy were crushed. I remember staring at a crumbling ceiling tile in my elementary school's counselor's office, as my fifth grade teacher told me, "You will never amount to anything, and you will never thrive in any school setting." The implication of her words became extremely evident in my actions from that moment on. From a steep academic decline to severe behavioral problems, it was the new norm for teachers to write me off as "troubled" and as a kid who "could not be helped." It was a norm I accepted, embodied and BELIEVED! (Aaron, University of Alabama Premier Award Essay, 2015).

Five decades of social science research have characterized poverty as the factor most likely to put individuals at risk for failure in school, and later, for not reaching their potential in life. Though well intentioned to secure critical human welfare services for families, schools, and communities, the poverty at-risk focus, unfortunately, may have done more damage than good by leading to harmful educational practices such as lowering expectations, tracking, stereotyping, prejudice, and discrimination. Current, rigorous studies are focusing on research and practice that result in successful learning and healthy development by identifying students' strengths as capacity building factors that can transform capabilities into resilience attributes (Benard, 2014).

Although it has been researched for some 70 years in the medical field and since 1970 in the behavioral sciences (Masten, 2007, 2011; Masten & Obradovic, 2006), resilience is quite an ambiguous construct. Resilience has been studied in K-12 education for the past 30 years; however, although service learning and its effect on academic engagement and civic responsibility have been studied considerably, little is known about the relationship between service learning and resilience. This research gap is due to research not measuring up to quality standards and to very few research studies having been conducted on the subject. In addition, teachers who implement K-12 service learning may think that research and writing for publication requires too much time, or that it is too difficult a task to tackle. However, if we fail to address why some at-risk children become successful and some never achieve their potential

in school, and later in life, we may continue to lose many of these students who could experience resilience through researched interventions and ultimately make positive contributions to society.

Resilience Research

There is no single definition of resilience. On the contrary, many definitions and explanations have been suggested in the literature. For example, Rutter (1981, 1984) and Doll and Lyon (1988) defined resilience as a response to risk, or an adjustment to negative life events (Rutter, 1987). In addition, Wang, Haertel, and Walberg (1994) defined academic resilience as the likelihood of success in school and in other accomplishments in spite of adversities. Children who overcome adversity in spite of numerous obstacles are identified as resilient, having innate abilities that interact with positive environmental protective supports (Zolkoski & Bullock, 2012).

In seminal research in the area of at-risk behavior, pioneer researchers and educators identified risk factors (children's weak innate traits and negative environmental factors) as signs of trouble and as predictors of poor life outcomes. During the second period of more positive resilience research, rigorous longitudinal studies tracked individuals to adulthood with findings demonstrating that 50-70% of high-risk children developed into healthy successful adults (Frymier, 1992; Masten & Coatsworth, 1998; Werner & Smith, 1992). Developmental resilience was described as a positive process through which some children who experienced stress and hardships developed competency and success in spite of

experiencing adverse risky situations. Studies focused on determining processes in which innate and positive environmental protective factors were associated with resilience (Masten & Obradovic, 2006). The third period of resilience research focused on promoting resilience through prevention, intervention, and policy (Zolkoski & Bullock, 2012). McMillan and Reed (1994) described their theory for how resilience evolves by suggesting that at-risk resilient children also have innate personality attributes and traits that contribute to their academic success and healthy development, whatever risk factors their background or set of circumstances may present. They also posit that there are specific interventions, especially in schools, that can foster resilience.

Personal Innate Characteristics of Resilient Children

Further studies (Benard, 1991; Benard, 2004; Masten & Coatsworth, 1998; Rutter, 1984, 1985, 1986; Werner, 1984; Werner & Smith, 1992; Wolin & Wolin, 1993) have identified developmental personality factors that separate resilient children from those who succumb to risk factors.

Benard (1996) listed these personal strengths:

- Social competence: empathy, communication skills, humor, cross cultural competence;
- Sense of autonomy/identity: self-efficacy, internal locus of control, mastery, self-awareness, detaching from negative situations;
- Sense of purpose/belief in bright future: a special interest, imagination, goal, direction, achievement motivation, educational aspirations, persistence, optimism, spiritual connectedness, sense of meaning .

According to Henderson (2003, 2007, 2013), resilient individuals do not have to possess all of the aforementioned traits, but, usually upon reflection can identify three or four attributes that have been significant in their transformation from at risk to resilient.

Environmental Protective Factors

In addition to the innate or personal attributes, current researchers agree that there are also environmental protective support factors that appear to alter and sometimes even reverse effects of risk. These environmental factors enable children to transform adversity into resilience at school and later, to success as adults (McMillan & Reed, 1994; O'Dougherty

Wright, Masten, & Narayan, 2013; Theron & Engelbrecht, 2012; Walsh, 2012). Benard (2007) identified three main categories of environmental protective factors:

1. Close caring relationships with “compassion, understanding, respect, and interest ...grounded in listening...that establish safety and basic trust” (p. 20). These relationships can include a parent or a teacher, counselor, school administrator who also can serve as a role model or mentor.
2. High expectations “communicate not only firm guidance, structure, and challenge but also, and most importantly, convey a belief in the youth’s innate resilience and look for strengths and assets as opposed to problems and deficits” (p. 20).
3. Meaningful “participation and contribution...valued responsibilities...making decisions...giving voice and being heard... contributing one’s talents to the community”(p. 20), particularly in middle school adolescence.

This third environmental factor is exactly a description of the highest level of service learning.

Recent Advances in Resilience Research

Current researchers believe resilience is more than just being sure a child’s positive innate traits and protective factors outweigh risks and negative environmental influences. For the past two decades, researchers have agreed that resilience refers to the capacity of all individuals to progress, in spite of risks, toward resilient outcomes. Instead of situating risk in youth and their families, current resilience research situates risk within a broader social context, such as racism, war, and poverty (Benard, 2014). Current resilience research grounds research and practice in optimism for building motivation; positive expectations internalized in youth may motivate them and teach them to overcome risks and adversity (Benard, 2014). Still, the critical question remains: Why do some individuals succeed in school and life, while others fail to reach their potential in school, and later in life?

According to Benard (2014), the development of resilience is the same process as healthy human development. Current resiliency research addresses basic human needs for love, connectedness, and meaningful involvement, a dynamic process where personality and positive environmental processes interact in a reciprocal transformational relationship.

Teachers and Schools Transforming Lives

Teachers. Although teachers may not know it, research demonstrates that they have the power to change at-risk behavior into resilient behavior in children by meeting basic needs of safety, love, and belonging (Benard, 1991). These “special” teachers can provide caring relationships (Higgins, 1994), positive and high expectations (Delpit, 1996), and opportunities that turn around their students by letting them express opinions, make choices, solve problems, and work with and help others. Example:

I was the only African American student at my high school. My assistant principal became the first educator who believed in me. Her intervention caused my self-esteem and attitude toward classes, grades, peers, and superiors to change. In addition, since my high school was small, I had the same English teacher for three years, for English, Advanced English, and AP English. My teacher not only believed in me, but also took care of me as if I were one of her own children. Every day when she bought her school lunch, she paid for mine, too. After school, she took me home with her children to do my homework and to eat dinner with her family. During my senior year in high school, I was elected president of my class. When I applied to The University of Alabama where I was accepted to the state's flagship University in 2011, my English teacher paid my application fee (Aaron, 2015).

Caring relationships from administrators, teachers, counselors, and coaches can serve as buffers for students at risk. Resilient children often have several mentors who have a great impact on their ability to develop positively through conveying understanding, compassion, interest, and trust (Werner & Smith, 1992).

Schools. Beyond individual characteristics of children and the impact that supportive family protective factors have on resilience, researchers have also begun to pay attention to ways schools may affect student academic resilience. School environments are already designed to provide “protective factors” that appear to alter or reverse potential risks/negative outcomes and foster natural resiliency in children (Benard, 2014; Henderson & Milstein, 2002). When a school promotes a culture where all students’ basic needs for support, respect, and belonging are met, motivation for learning is improved and students feel that they have a place in society (Benard, 1996). Certain practices such as

asking questions that require critical thinking about current social issues, designing learning experiences that are hands-on and that employ cooperative approaches such as cooperative learning, peer helping, cross-age mentoring and community service give students opportunities to share their gifts to give back to their school or community and foster all traits of resilience (Benard, 1996). Such experiences represent the highest levels of service learning and community engagement. While creating informal helping opportunities in the classroom is critical to creating the value of caring, programmatic approaches that are particularly effective in producing positive development outcomes include peer helping, community engagement, and service learning (Melchior, 1998; Reis, Colbert, & Hebert, 2005; Rutter, Maughan, Mortimore, Ouston, & Smith, 1979; Slavin, 1990).

Service Learning

Service learning is a programmatic method of teaching and learning that offers a unique opportunity for young people to apply knowledge and skills they learn in the classroom to solve real-life community problems and develop real-world services that benefit society. Learning conditions can be designed to teach students to become producers of knowledge, not just consumers of information. Research documents that quality service-learning experiences can positively impact student participants in a number of ways, such as improving: (a) academic outcomes, including students’ academic performance and engagement; (b) civic responsibility; (c) self-esteem, self-efficacy, and resiliency; and (d) career choices. In order to produce positive impacts, however, the service-learning experiences must be high-quality experiences that meet quality service-learning standards (Billig, 2000; Billig, Root, & Jesse, 2005; Furco, 2002; National Youth Leadership Council, 2010).

The National Youth Leadership Council (2010) developed a set of quality indicators for service learning called “K–12 Service-Learning Standards for Quality Practice” to improve the uniformity and rigor of these experiences as an instructional practice. Quality programs must maintain high standards in the following areas: linking projects to curriculum; incorporating meaningful service; maintaining duration and intensity (70–80 hours of service learning); understanding diversity; incorporating youth voice in planning, implementing, and evaluating their respective projects; collaborating and working with community partners; employing

reflection that incorporates higher-order thinking skills and/or technology before, during, and after activities; and consistently monitoring progress throughout the project.

Science in Action: An Example of High-Quality Service Learning

Science in Action is a four-year service-learning project funded by the CNCS to support Georgia and Alabama high poverty middle schools in their development of innovative service-learning STEM projects. CNCS awarded a grant of \$675,631 to the University of Alabama College of Education to oversee and fund 20 projects for middle schools in high poverty areas that met criteria of 50% or more free and reduced-priced lunches. More than 6,000 students, 100 teachers and 120 community partners were engaged in the projects. The goals focused on improving students' academic engagement, civic responsibility, and resiliency for at-risk behaviors. Teachers worked with colleagues and experts to expand their pedagogical knowledge base and instructional strategies to facilitate STEM-related (inquiry-based science) service learning and community engagement projects to address real problems in their schools and communities. Schools were expected to uphold standards, as described in the "K-12 Service-Learning Standards for Quality Practice." In the Science in Action's high-quality implemented programs, for example, students' service-learning projects included action-oriented experiences such as:

1. Creating museum displays to demonstrate what students learned instead of passively taking tests covering content.
2. Studying the relationships of carcinogenic agents in all types of water sources in an Alabama county that has the highest cancer rate in the state.
3. Working with the city to develop a community park with an amphitheater that the school and community share.
4. Focusing on child obesity and poor exercise to turn around an entire school and community where individuals have changed their eating exercise habits and becoming a charter school.
5. Studying causes and treatment of cancer and providing an awareness session for over 500 community members and participating in a Relay for Life fundraiser.
6. Study extreme weather and developing kits filled with weather radios, flashlights,

batteries, water, and directions for finding safety, etc. Students presented a community awareness session and distributed weather boxes prior to the April 27 tornadoes that killed more than 200 Alabama citizens. Loss of lives in one particular rural town was only 2, compared to 35 deaths in the community just a few miles down the road. Officials attributed the low death rate to the student's weather kits and awareness session presented just a week before the tornadoes struck the area.

I have been awarded "Best Teacher" in Breakthrough Miami, one of the "Top 10 U.S. Internships," as rated by U.S. News and World Report (<http://usnews.rankingandreviews.com/best.../internship-programs>) I developed a leadership program for the Boys and Girls Clubs of North Alabama. I took this program to Serbia (through the UA Exchange Student Program), and the U.S. State Department presented me the International Exchange Alumni Award. Recognizing my work, the director of U.S. diplomats wants to see me in Foreign Service once I graduate from UA (Aaron, 2015).

Method

A retrospective design was used to assess the potential effect of high-quality service-learning/community engagement projects on measures of student resiliency. Over the course of the four-year period, half of the 20 schools that received funding in the Science in Action project completed most of the required elements of six formative evaluations. The 10 schools that consistently met the requirements based on the eight K-12 Service-Learning Standards for Quality Practice (see <http://www.nylc.org/k-12-service-learning-standards-quality-practice>) were then divided into low-quality implementers and high-quality implementers. These groups were determined by two evaluators' rating the quality of each school's service-learning program, using Liptrot's (2010) evaluation instrument that includes the eight quality service-learning standards. Evaluators were required to maintain a minimum of 85% inter-rater reliability for each survey question.

As an evaluation component of the Science in Action Project, service-learning teachers were asked to administer a series of end-of-year instruments to the students, one of which, Learn and Serve America: Resilience Student Survey, Grades 6-12,

was designed to assess resiliency. This instrument was developed jointly by Shelley Billig and the Corporation for National and Community Service (2008) and the instrument was targeted for this study due to the student- and school-based questions. Six items are theoretically related to a student resiliency construct; there are also 11 items related to school factors that are associated with resiliency. As a precursor for using the summative score of these items as measures of resiliency, factor analysis techniques were employed to assess the six resiliency items as representative of a single construct and the 11 school factor items as a representation of a single construct. Upon assessment of evidence of construct validity, the summative scores of the personal resiliency and school factors scales were used as dependent variables. Analysis of differences in student personal resiliency scores and school-based factors associated with resiliency by quality of service-learning experience were then conducted.

Participants

The resilience instrument was administered at 20 schools to a total sample of 1,669 students after participating in a school-specific year-long service-learning project. Given the retrospective nature of the data, a random sample of 336 students who participated in high-quality implementation of service-learning projects and a random sample of 336 students randomly selected from low-quality service-learning projects were drawn for analysis for a total sample size of 672. A power analysis using G*Power 3.0 indicated that the total sample of 672 corresponds to power of .99 to detect a moderate effect ($d = .5$) between two groups using an .05 alpha level. The demographic categories of gender, free or reduced lunch status, and race/ethnicity were compared to evaluate demographic differences between the groups of students from low and high-quality implementing service-learning programs. There was no statistically different distribution between the groups for gender ($\chi^2=0.94$, $df=1$, $p=.33$) or free/reduced lunch status ($\chi^2=0.35$, $df=1$, $p=.55$), but there was a statistically different distribution in the case of gender/ethnicity ($\chi^2=68.7$, $df=3$, $p<.001$). The high-quality implementing group was represented by a larger percentage of African American and Hispanic students than the low-quality implementing group (Table 1).

Construct Validity of the Scales

A psychometric analysis of the six resiliency-based item and the 11 school-based items from the instrument was conducted to ensure that there was

evidence of construct validity for the two scales. The items were measured on a four-point Likert-type scale from strongly disagree to strongly agree with the item statement. The total sample of 1,669 students was used in an exploratory factor analysis. Given the ordinal nature of the Likert-type data, the polychoric correlation matrix was utilized in a minimum rank factor analysis extraction to determine the best factor structure for both scales. The FACTOR (ver. 9.3) program was used to conduct the exploratory factor analysis. A parallel analysis using the Timmerman and Lorenzo-Seva (2011) method indicated that the six resiliency questions formed a unidimensional scale consisting of a single factor, and the 11 school-based factors items formed a unidimensional scale consisting of a single factor. The single resiliency factor explained 53.7% of the variance in the six items. Factor loadings from .530 to .823 indicated good to strong loading for the items. Cronbach's alpha for the scale was .82 indicating good internal consistency (Table 2). In terms of the school-based factors items, the single factor explained 58.3% of the variance in the 11 items with factor loadings from .58 to .83. Cronbach's alpha for the school-based factors scale was .93 indicating strong internal consistency (Table 3). Both the student factors associated with the resiliency scale, and the school-based factors associated with resiliency scale have strong evidence of construct validity and internal consistency.

Results

Comparison between groups of students representing the low- and high-quality service-learning implementers was conducted using independent t-tests. Two dependent variables – student resiliency and school-based resiliency factors – were calculated from the instrument results. There was a significant difference between students in low and high implementing schools in student resiliency scores, $t=3.32$, $df=635.3$, $p=.001$, $d=.26$. The average student personal resiliency score for students in the high group

Table 1. Demographic Statistics of Students in the Low- and High-Performing Schools

| Demographics | | Low Performing (%) | High Performing (%) | X ² | P |
|----------------|---------------|--------------------|---------------------|----------------|-------|
| Gender | Male | 52.1 | 48.4 | 0.94 | .33 |
| | Female | 47.9 | 51.6 | | |
| SES Free/ | Paid Lunch | 42.9 | 45.2 | 0.35 | .55 |
| | Reduced Lunch | 57.1 | 54.8 | | |
| Race/Ethnicity | Caucasian | 78.8 | 49.7 | 68.70 | <.001 |
| | Black | 15.2 | 25.6 | | |
| | Hispanic | 4.5 | 21.9 | | |
| | Other | 1.5 | 2.8 | | |
| | | (n=336) | (n=336) | | |

($M=20.5$) was significantly higher than the scores for students in the low group ($M=19.6$). Similarly, with regard to school-based resiliency factors, there was a significant difference in scores between students in the low-quality implementing groups and high-quality implementing groups, $t=4.80$, $df=669$, $p<.001$, $d=.37$. Students representing the low performing schools indicated lower levels of school-based resiliency factors in their school ($M=32.6$) than those representing high performing schools ($M=34.8$).

Discussion

Although there is very little research literature related to service-learning and community engagement programs that include high-quality implementation of service-learning standards, researchers have indicated that increased levels of knowledge and understanding in academic engagement, civic responsibility, and resilience are more likely to be reached when service-learning programs meet high standards (Billig, 2010). The present study explored differences in student resilience and students’ perceptions of school-based factors affecting resilience between high- and low-quality implementation of service learning/community engagement programs. The findings suggest that in schools where service-learning/community engagement programs upheld the Service-Learning Quality Standards (NYLC, 2010) as measured by Liptrot’s (2010) evaluation instrument, students’ scores of personal resilience and perceptions of school-based factors affecting resilience (see Table 4) were significantly higher than those participating in service-learning programs not meeting these standards.

This study suggests that the foundation from which to start building students’ abilities is for caring adults in their schools and lives to believe that every student has innate resilience (see items in Table 2). Studies related to the factors that assist students at risk to become resilient may further explain how to foster such qualities in students whose adversities are preventing them from succeeding in school or in life. One way to support children at risk is to examine the construct of resilience. By thoroughly understanding the history and components of resilience (Zolkoski & Bullock, 2012), educators can help students develop the particular personal resilience, innate traits, or coping skills that enable them to transform from “service receivers” to “service givers.” These traits are present in early childhood and may be further developed in adolescence if they interact with positive environmental protective factors (Benard 2004, 2007) (see items in Table 3).

Table 2. Factor Loadings and Communalities of Student Resilience Items (N=1,669)

| Item | Mean | Standard Deviation | Factor Loading | Communality |
|---|------|--------------------|----------------|-------------|
| I enjoy working together with students my age. | 3.21 | 0.80 | .60 | .49 |
| I can work with someone who has different opinions than mine. | 2.99 | 0.82 | .56 | .62 |
| I stand up for myself without putting others down. | 3.17 | 0.80 | .53 | .37 |
| I plan to graduate from high school. | 3.70 | 0.60 | .82 | .79 |
| I plan to go to college or some other school after high school. | 3.62 | 0.69 | .81 | .77 |
| I have goals and plans for the future. | 3.63 | 0.66 | .76 | .61 |

Table 3. Factor Loadings and Communalities of School-Based Factors Related to Resiliency Items (N=1,669)

| Item | Mean | Standard Deviation | Factor Loading | Communality |
|---|------|--------------------|----------------|-------------|
| I do things at school that make a difference. | 2.79 | 0.79 | .66 | .56 |
| At least one teacher or other adult at school believes in me. | 3.34 | 0.73 | .76 | .72 |
| The schoolwork I am assigned is meaningful and important. | 3.13 | 0.75 | .76 | .73 |
| I do interesting activities at school. | 3.09 | 0.80 | .72 | .63 |
| At school, I help decide things like class activities and rules. | 2.44 | 0.92 | .58 | .73 |
| At least one teacher or adult at school listens to me when I have something to say. | 3.13 | 0.78 | .82 | .79 |
| At least one teacher or adult at school notices when I am not there. | 3.17 | 0.77 | .75 | .66 |
| At least one teacher or adult at school always wants me to do my best. | 2.96 | 0.84 | .75 | .76 |
| At least one teacher or adult at school listens to students’ ideas about how to improve the school. | 3.42 | 0.71 | .80 | .81 |
| At least one teacher or adult at school really cares about me. | 3.20 | 0.79 | .83 | .77 |
| The things I am learning in school will be important for my future. | 3.33 | 0.76 | .75 | .78 |

Table 4. Differences in Resiliency Between Students in Low- and High-Performing Schools

| Measure | Low Performing Schools | High Performing Schools | Mean Diff | t | df | 95% CI of Mean Diff |
|---------------------------------|------------------------|-------------------------|-----------|-------|-------|---------------------|
| Student Resiliency | 19.6(3/7) | 20.5(2.9) | -0.86 | 3.32* | 635.3 | -1/4 tp -0/4 |
| School-Based Resiliency Factors | 32/6(6/4) | 34/8(5.7) | -2/25 | 4.80* | 669 | -3.2 to -1.3 |

* $p<.001$

According to Rutter (1984), development of resilience is a result of “connectedness,” in which linkages happen between individuals and family, school, and community environments. When dysfunctional families do not provide children

meaningful relationships, building positive environments in which children at risk can succeed in schools and communities are critical so that youth can experience mutually caring relationships that give meaning to their lives and provide opportunities for authentic involvement, i.e., a reason for caring and commitment to serve others (McLaughlin, Irby, & Langman, 1994; Werner & Smith, 1992). Sergiovanni (1993) contends that the need for community is universal, and that adults must have experienced this kind of environment, if they are, in turn, to create opportunities for children to experience resilience.

Resilience research in K-12 education is relatively new. It focuses on practices that result in healthy development and successful learning despite risk factors and adversity (Werner, 2007). Resilience research provides educators a blueprint for creating schools with a healthy school climate where all students can thrive socially and academically (Perkins, 2006). Schools where basic human needs for support, respect, and growth are met, motivation for learning is fostered. Reciprocal caring, respectful, and participatory relationships are critical factors in determining whether a student learns, whether a program or strategy is successful, whether an educational change is sustained, and, ultimately, whether a student feels he has a place in society. By becoming more aware of environmental protective factors and making a commitment to strengthen them, teachers and schools can play a significant role in developing resilience (Henderson, 2003, 2007, 2013) by providing opportunities that promote real responsibility and real work (McLaughlin, et al., 1994).

Meaningful extracurricular programs, not just brief acts of kindness in the classroom, provide experiences that nurture self-esteem and give students experiences of required helpfulness, an environmental factor that may help to develop resilience. Teachers and administrators can help find community projects that provide a “fit” for students based on their interests. These experiences help to shape belief in self, which contributes to self-efficacy and transformation from at risk to resiliency.

Providing opportunities for youth to engage in meaningful involvement and responsibilities within the school and community environments is often an expected norm of schools that promote high expectations (Benard, 2014). Participation that stresses caring and respect is a fundamental human need; moreover, some education reformers believe that when schools ignore these basic needs, schools become alienating places (Sarason, 1993). Certain

instructional practices such as cooperative learning, cross-age learning, and community service provide youth opportunities to give their gifts back to the school and community and, indeed, foster innate traits of resilience.

Personal strengths, coupled with healthy development and the opportunity to give back to the community (in this case, service-learning/community engagement is key), can cause a transformation in the child that produces social competence, problem-solving, goal setting, critical thinking, planning, resourcefulness, achievement motivation, and/or educational aspiration. Participation in high-quality service-learning projects may lead to success in achieving a tangible objective such as developing an outdoor classroom, a community garden, or a new museum school (an alternative education model where community professionals collaborate with students to create museum exhibits). At another level, students can experience empowerment by taking action toward a goal and reflecting on implications of the process. Neither empowerment nor resilience can be taught; they are a continuous function of multiple experiences leading to becoming a change agent (Stenhouse, Jarrett, Williams, & Chilungu, 2014) (see Tables 2, 3, and 4).

While the results of this study should not be construed to suggest that high-quality service-learning programs cause student resilience, they do provide evidence of a connection between service learning/community engagement and resilience. Future experimental studies on the connection between high-quality service learning and resilience should attempt to isolate the direct effect of service learning/community engagement on resilience and the connection between student personal and school-based factors related to resilience and high-quality service learning.

A further contribution of this study to future research would be the establishment of evidence of validity for measures of student resilience and school-based factors affecting resilience. In addition, this study reopens the discussion about the relationship of service learning to resilience.

Lessons Learned/Implications

For the past 50 years, resilience research has provided many studies that demonstrate that some 50–70% of children – including those born in high-risk conditions such as dysfunctional families, crime, war, and poverty – can develop sufficient social competency to lead successful lives (Benard, 2014). These studies also agree that there are special

personal attributes and positive environment factors that are part of the process through which resilient youth develop.

This research and a review of the resilience research literature suggest a strategy of identifying positive strengths and environmental factors within families, schools, and communities rather than focusing on the negative high-risk conditions to which at-risk children are exposed. Future research should look at the children, families, schools, and communities as positives about future life that resilient youth internalize, which empower them to become successful in school and life (Benard, 2014). Further research is also warranted to determine the relationship between and among the relevant variables. The central questions for current resilience researchers are: How does the at-risk to resilience transformation in youth take place? When does it happen? Where does it occur? How and why does the process evolve?

Many service-learning studies have been conducted to determine if there is a relationship between quality service-learning programs and academic engagement and civic responsibility (Billig, 2010); however, research in this area is limited. As new rigorous studies are conducted, educators will come to understand the importance of high-quality programs and their relationship to improved personal and educational outcomes. It is well documented that schools are natural havens (Henderson, 2013) where students at risk can become involved in projects in which they identify and solve problems, a process that moves them from service receivers to service givers.

Resilience research calls for a nation's dedication to and belief in its children and youth. It creates a mandate for social change. Instead of centering on risk in children, their homes, and communities, researchers instead should view children as positive resources with the potential to disprove the assumption that risk equals poverty and vice versa. Resilience scholars have an obligation to provide opportunities for youth to participate in the investigation of problems, planning, action, reflection, and evaluation/celebration, which are exactly the principles upon which service learning and community engagement are based. Educators must instill in their students hope for a future where all citizens are grounded in social and economic justice. Not only are educators nurturing healthy development and successful learning in at-risk students, but they are also creating inside-out social change by building the compassionate and creative citizenry critical to a welcoming and opportunity-

filled world (Nelson & Sneller, 2011; Benard, 2014), one in which a student who was told as a child he would never succeed in a university setting but today is beating the odds, thriving on the campus where I am privileged to work.

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