Chapter 12
Fostering Psychosocial Skills: School-Based Promotion of Resiliency in Children and Adolescents

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12.1 School-Based Promotion of Resiliency in Children and Adolescents

Resilience in the face of adversity has been studied extensively by psychologists for the past 50 years. This body of work has defined the common theme of resilience as the ability to weather adversity or to bounce back from a negative experience. Research on resilience suggests that psychological symptoms and disorders may be based in part on lower personal resiliency or greater vulnerability to situations and events that the person has experienced (Garmezy, 1971, 1985, 1991; Garmezy, Masten, & Tellegen, 1984; Luthar, 1991; Luthar, Cicchetti, & Becker, 2000; Luthar & Zigler, 1991, 1992; Masten, 2001; Masten & Coatsworth, 1998; Masten & Curtis, 2000; Masten & Powell, 2003; Masten et al., 2005; Prince-Embury, 2007, 2008, 2013a; Prince-Embury & Saklofske, 2013, 2014; Rutter, 1987, 1993).

The definition of resilience as a product of complex interactions of personal attributes and environmental circumstances, mediated by internal mechanisms, has presented a challenge to those interested in applying the construct to human behavior in everyday and extreme circumstances (Luthar et al., 2000). In an effort to clarify constructs, theorists have distinguished "resilience" from "resiliency"; the former is defined as interactive and contextual and the latter addresses personal attributes of the

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individual (Luthar et al., 2000; Luthar & Zelazo, 2003; Masten & Coatsworth, 1998). Some resilience research has employed longitudinal studies, reflecting a developmental perspective, and tried to capture contextual aspects of resilience specific to groups and sets of circumstances. Studies assessing personal resiliency, in an effort to be comprehensive, have employed extensive assessment batteries, along with various criteria of competence, achievement, or successful adaptation (Werner & Smith, 1982).

Earlier research findings on resilience were interpreted to suggest that resilient individuals are "extraordinary" and that this quality or characteristic is not accessible to everyone. More recently, Masten described resilience as the process characteristic of normal development, an "ordinary magic," and not just applicable in adverse circumstances (Masten, 2001; Masten & Powell, 2003). Masten (2001) suggested that fundamental systems, already identified as characteristic of human functioning, have great adaptive significance across diverse stressors and threatening situations. This shift in emphasis had significant implications, and the "ordinary magic" framework suggested by Masten led to the extended application of resilience theory to a wider range of individuals in varied contexts. These systems include attachment relationships and social support; intelligence and problem-solving skills; self-regulation skills involved in directing or inhibiting attention, emotion, and action (Chap. 9); agency, mastery, motivation, and self-efficacy (Chap. 10); *meaning making* (constructing meaning and a sense of coherence in life); and cultural traditions.

12.1.1 The Role of Resilience in Schools

In spite of its conceptual complexity, "resilience" has been recognized by educators and school psychologists as a concept that is consistent with overall educational goals and well suited for application in educational settings. Resilience has been applied in more education-specific ways as "academic resilience." Academic resilience may be defined as the ability to effectively deal with setbacks, stress, or pressure in an academic or school setting. This concept has been employed to understand academic success in poor, minority, and disadvantaged students (Wang, 1994). Rutter (1987), in early discussions of resilience, identified four types of mechanisms that are applicable in academic settings for mediation of adverse circumstances: reducing the impacts of risks, reducing the likelihood of negative chain reactions associated with adversity, establishing and maintaining self-esteem and self-efficacy, and creating new opportunities for success. Examples of the applications of Rutter's four mechanisms are already in place in many academic settings. Children from impoverished families may attend "Head Start" or early enrichment programs to better prepare them for success in regular school classrooms. Increasingly, educators have focused on identifying learning needs and employed a "strength-based" perspective rather than a "disability" perspective which leaves the child to feel inadequate and disempowered. An attitude of respect and both personal and academic self-worth may be fostered by individual teachers and school

environments in general. Learning opportunities are offered in various formats to accommodate the diversity of strengths and learning styles in children, drawing from what we know about the characteristics of learners and fitting this to the most effective learning environments.

The National Association of School Psychologists embraced the theme of "Resilience: Building Strength for Life" for its 2008 Conference in New Orleans. This theme was part of a year-long initiative aimed at integrating the resilience concept into the practice of school psychology and presenting practices to build resilience within the school setting. Presentations suggested that application of resilience/resiliency constructs in educational environments made sense for many reasons. The constructs are based on relative strength and vulnerability as opposed to a deficit model or clinical pathology. The constructs relate to academic achievement and positive educational environments as well as avoidance of pathology and dysfunction. The constructs are developmental and normative and may be applied universally to guide system-level practice as well as individually to screen for children and youth who may be at risk. School psychologist and other practitioners have already begun applying principles of resilience to education (Doll, Zucker, & Brehm, 2004; see also Prince-Embury & Saklofske, 2014) in the classroom (Brooks & Goldstein, 2001), by coaching parents (Brooks & Goldstein, 2001) and by coaching teachers (Brooks & Goldstein, 2008). Resilience in education has also been linked with school-based mental health initiatives intended to create environments and the developmental skills that encourage the psychological well-being of children and that further extend into the community at large (see Canadian Journal of School Psychology, 2013, 28, 1).

12.2 Conceptualizing Resiliency for Applications in School Settings

Many concepts and many interventions are subsumed under the umbrella constructs of resilience/resiliency, including constructs of social-emotional learning (SEL). This has led some to argue that lack of consensus on a definition limits any practical use of resilience in understanding, predicting, and changing human behavior (Kaplan, 1999, 2005). Alternatively, some have claimed that in spite of conceptual complexity, the phenomenon of resilience has too much heuristic power to be abandoned (Luthar et al., 2000). Elias, Parker, and Rosenblatt (2005) proposed the use of working definitions of resilience/resiliency that satisfy two criteria: (1) does the definition add value to existing constructs in understanding circumstances; (2) does the definition inform the design of interventions. Kaplan's (2005) review conceded that concepts are not by their nature true or false but may be evaluated with regard to their usefulness. Given such conceptual debates, one might ask what added value is offered by the construct of resiliency over the construct of SEL, or conversely are these really the same? We suggest that although there is much overlap between resiliency and SEL, there are differences between the two. Social-emotional learning

enhances the relational and self-regulatory skills of children as assets that enhance their ability to function and learn in an educational setting as well as future settings. Resiliency is comprised of core factors that help children in the face of possible adversities, large and small, that might be encountered during their school years and beyond. Thus, while social-emotional competency can be viewed as a facet of resiliency, in that resiliency includes relational and self-regulatory skills, resiliency also includes other factors that are important in the presence of adversity.

12.2.1 Three-Factor Model of Personal Resiliency

One effort to simplify the construct of personal resiliency for non-stigmatizing assessment and application in the schools is the three-factor model developed by Prince-Embury (2007, 2013a, 2013b, 2014). This model is based on three previously identified attributes of personal resiliency reflective of three core developmental systems, sense of mastery, sense of relatedness, and emotional reactivity, and the relationship of these factors to one another (Prince-Embury, 2006, 2007, 2013a, 2013b, 2014). Earlier models of personal resiliency suggested one factor: resiliency as a trait was viewed by some as present to some degree or not (Block, 1980, 2002). Other resiliency literatures discussed two factors: protective or risk. The three-factor model was based on review of the literature, clinical practice, and factor analysis (Prince-Embury, 2007, 2013a, 2013b; Prince-Embury & Courville, 2008a, 2008b). The three-factor model includes many of the constructs discussed in association with SEL but groups them into three conceptual categories for the purpose of clearer needs assessment, intervention, and outcomes assessment. Unlike the skill-based SEL model, the three-factor model of personal resiliency focuses on the personal experience of the child and not actual ability or performance as assessed by others. Although it is recognized that actual ability and performance as assessed by others is important, the three-factor model assumes that the child's experience mediates between external protective factors and positive behavioral outcomes. The definition of resiliency according to underlying developmental systems is designed to aid in the identification of appropriate interventions that may be most needed at the individual or aggregate level. Definition and application of each of the three factors of personal resiliency are described briefly below.

Sense of Mastery One set of core mechanisms that have been consistently identified as important for resiliency in developmental and resilience research are sense of mastery and self-efficacy. White (1959) suggested that children's sense of competence or efficacy provides them with the opportunity to interact with and enjoy cause-and-effect relationships in the environment. Bandura (1977, 1993) suggested that students' self-efficacy beliefs for regulating their own learning and mastering academic activities determine their aspirations, level of motivation, and academic accomplishments (see also Chap. 9). Positive expectations about their future predicted lower anxiety, higher school achievement, and better classroom behavior

control (Wyman, Cowen, Work, & Kerley, 1993). Previous research and theory suggests that children and youth who have a greater sense of competence/efficacy may be more likely to succeed in a school environment and less likely to develop pathological symptoms. Interventions to enhance sense of mastery have significant implications for the school setting. Enhanced and realistic sense of mastery increases students' expectations and attempts to achieve these expectations, which in turn may enhance a sense of mastery. Looking at the school environment contextually, we refer to several specific pathways for enhancing sense of mastery: lessons that are matched to the ability level of students and broken into achievable steps, reducing the likelihood of negative chain reactions associated with adversity, establishing and maintaining self-esteem and self-efficacy, and creating new opportunities for success (Rutter, 1987, 1993, 2010); teachers trained to foster a resilient mindset in students (Brooks & Goldstein, 2008); a teaching process that redefines "failure" as overcoming challenges and problem solving; and classroom environments that are responsive to the feedback of students in creating a more resilient classroom (Doll et al., 2004).

Sense of Relatedness Reviewing five decades of resilience research in child development, Luthar (2006, p. 780) concluded, "Resilience rests, fundamentally, on relationships." The importance of relationships for human resilience has been noted in every major review of protective factors for resilience (see Masten & Obradovic 2006). The importance of relationships and relational ability as mediators of resilience has been supported in research by developmental psychologists. Much developmental theory has been devoted to the development of internal mechanisms of attachment and relatedness (see Prince-Embury, 2007 for discussion). Werner and Smith (1982) noted that resilient youth sought support from nonparental adults (especially teachers, ministers, and neighbors) more often than non-resilient youth. It must be noted, however, that previous research has indicated that perceived support, as distinguished from actual support, is the dimension of social support that is most strongly related to psychological well-being in adults and children (see Prince-Embury, 2007 for discussion). Efforts to enhance actual relatedness and perceived support have focused on enhancement of social skills through social-emotional learning. The logic is that youth with better social skill will have better relationships and enhanced sense of relatedness.

Within the context of social-emotional learning, much thought and effort has been given to enhancing social skills in children such as communication, cooperation, assertion, empathy, engagement, and self-control, which may be broken down into teachable skills such as improving eye contact, initiating and maintaining conversations, understanding others' feelings and promoting empathy, sharing, and maintaining personal space (Alvord, Zucker, & Grados, 2011; de Boo & Prins, 2007). Such programs as Social Skills Improvement System (Gresham & Elliot, 1990) have been successfully used with children and adolescents to increase interpersonal competencies when these are lacking and are among the major contributors to a child's social and emotional difficulties.

Enhancing interpersonal skills in youth may enhance school engagement and performance and perhaps more general sense of relatedness in the long run. The implication for application in the school environment is that better social skills increase the likelihood of better social relationships with peers and teachers and less conflict that interferes with learning and school attendance. In addition, research has indicated that better social engagement in school is associated with better academic performance. Students who have friends at school are more interested in academic activities and are more active participants in the classroom (Malecki & Elliott, 2002; Wentzel & Watkins, 2002). This is consistent with the assumption that learning and achievement takes place within a meaningful social context and that strength of engagement of students with teachers and other students indicates the social meaningfulness of the school environment. In summary, research suggests that a positive sense of relatedness within the school environment is essential for meaningful learning and academic achievement. Therefore, efforts to enhance students' social engagement with peers and teachers within the school environment would enhance the educational goals of the school. In addition, focus on sense of relatedness and other SEL skills is also consistent with trait models of emotional intelligence (EI), which suggest that social-emotional competencies have positive implications throughout the lifespan (Bar-On, 2006; Petrides, 2011).

Emotional Reactivity Developmental research has demonstrated that children's development of pathology in the presence of adversity is related to their emotional reactivity and their inability to regulate this reactivity (Prince-Embury, 2013b). Specifically, strong emotional reactivity and related difficulty with regulation of this reactivity have been associated with behavioral maladjustment and vulnerability to pathology. Emotional reactivity is in part the child's arousability or the threshold of tolerance that exists prior to the occurrence of adverse events or circumstances. Rothbart and Derryberry (1981) have defined emotional reactivity as the speed and intensity of a child's negative emotional response. Children's reactivity varies in its intensity, sensitivity, specificity, windows of tolerance, and recovery (Siegel, 1999). Conversely, emotional regulation, or the ability to modulate emotional responses, is a significant factor in fostering resilience (Cicchetti, Ganiban, & Barnett, 1991; Cicchetti & Tucker, 1994; Eisenberg, Champion, & Ma, 2004). Regulation and redirection of emotional arousal is necessary for children to function adaptively in emotionally challenging situations (Cicchetti et al., 1991; Thompson, 1990).

Emotional reactivity in the school environment may be viewed as a source of impaired functioning and thus an impediment to learning. Importantly, academic achievement and behavioral self-control are highly interdependent. Students who are attentive, regulated, and persistent in their work often earn higher grades, whereas those who lack behavioral self-control often underachieve academically (Doll et al., 2004). Some studies have found disciplined classroom behavior to be a better predictor of students' grades than intellectual ability (McDermott, Mordell, & Stoltzfus, 2001). Existing programs to address emotional reactivity in school environments may involve relaxation exercises; learning how to accurately identify, label, and verbalize emotions; and regular opportunities to discharge excess energy.

The significance of emotional reactivity and emotion regulation in the school environment may be viewed on many levels. First, individual differences in students' physiologically based emotional reactivity may make adaptation to a structured, sedentary school environment difficult for those with higher emotional reactivity. Interventions for such children may involve behavior management and relaxation techniques or in some cases medication prescribed by physicians to lower base emotional reactivity. On the level of the school environment itself, we may examine potential triggers of emotional reactivity for children in general. Triggers may include novelty such as starting a new school or transitioning from elementary to middle, or middle to high school; presentation of material at a level too difficult for the student; punitive consequences for difficulties in learning; and difficulties in peer relationships including but not limited to bullying. Interventions in these instances would involve identifying triggers of emotional reactivity, preparation for these triggers, and efforts to modify these triggers to more emotionally neutral events. In summary, enhancing school resilience through addressing emotional reactivity might involve the following: identifying youth with higher emotional reactivity, teaching students to recognize early signs of emotional reactivity, and teaching them techniques to self-regulate and manage emotions, reducing the potential of environmental triggers to increase emotional reactivity in the school environment.

12.2.2 Need for Resiliency Assessment in the Schools

Assessment is the cornerstone of effective intervention. Studies of resilience have been both cross-sectional and longitudinal, have employed a developmental-psychopathology perspective, and have tried to capture contextual aspects of resilience specific to the group and sets of circumstances. Researchers of both resilience and resiliency have used different measures across studies and across populations making it difficult to compare across studies and across groups. The resiliency measures employed in research have often been impractical for widespread use in the school community because they are too labor intensive or expensive. On the other hand, some measures are restricted in their definition of resiliency or may not be linked with current or identifiable models of resiliency. From a psychometric perspective, some measures have less than adequate reliability and validity and may not have gone through the kind of standardization that would provide normative data that aid in the interpretation of an individual's scores relative to peers or clinical groups. The lack of common metrics across different studies of resilience/resiliency constructs and across research and practice results in difficulty assessing the effectiveness of intervention strategies in a way that allows comparison across methods and populations (Prince-Embury, 2011).

On a practical level, there is work to be done to make resiliency assessment tools more field friendly (Masten, 2001; Masten & Powell, 2003). Hence, there is a need for measures and benchmarks describing resiliency that are brief, easily administered, and simple to score and interpret. In addition, measures used with

diverse school populations must be bias-free with respect to gender and ethnicity and worded so that they might be used with a broad range of reading levels. In order to be acceptable to parents, students, and teachers in school settings, a measure assessing resiliency needs to be strength based and informative while at the same time not stigmatizing or "pathologizing" of groups or individuals (Prince-Embury, 2011).

Resiliency Scales for Children and Adolescents Prince-Embury developed the *Resiliency Scales for Children and Adolescents* (RSCA; Prince-Embury, 2006, 2007) for use in preventive universal screening to identify areas of strength and vulnerability at the aggregate and individual level, for planning resiliency enhancing interventions in the schools (Prince-Embury, 2010). The RSCA consists of three global scales based on the three-factor model of personal resiliency discussed above: sense of mastery, sense of relatedness, and emotional reactivity. Each of the global scales is further composed of several subscales: sense of mastery includes optimism, self-efficacy, and adaptability; sense of relatedness encompasses trust, comfort with others, support, and tolerance; emotional reactivity comprises sensitivity, recovery, and impairment. The RSCA is completed by the child (self-report) and written at a third-grade reading level and takes 10 min to complete.

The three global scale scores (mastery, relatedness, and emotional reactivity) may be used to plot each child's Personal Resiliency Profile, which highlights the individual child's relative strengths (mastery and/or relatedness) and vulnerability (emotional reactivity). At an individual level, the Personal Resiliency Profile may be used to guide the selection of an intervention or treatment plan. For example, youth who are low in sense of mastery may be presented with gradual achievable tasks toward specific educational goals. Youth with low sense of relatedness may be offered social skill training. Youth with high emotional reactivity may be presented with relaxation exercises and self-regulation skill training.

Examination of individual and aggregate Personal Resiliency Profiles indicated that although there was considerable individual variability, the two protective factors, mastery and relatedness, were often correlated with each other and negatively correlated with emotional reactivity (Prince-Embury, 2007, 2013a, 2013b). For this reason it is possible to condense the three-factor scores into two index scores for screening. The two protective scores, mastery and relatedness, may be combined to form a resource index score (see Prince-Embury, 2007 for details). Vulnerability then may be represented as the discrepancy between the emotional reactivity score and the resource index score (see Prince-Embury, 2007, for details). These two RSCA index scores, resource and vulnerability, may then be used for preventive, non-pathologizing screening in school systems.

The RSCA was standardized for three age groups (9–11, 12–14, 15–18) and stratified by ethnicity and parent education level within age group and gender. The RSCA scores demonstrate good to excellent reliability at the index, global scale, and subscale levels. Also, convergent and divergent validity evidence has been demonstrated (Prince-Embury, 2006, 2007, 2008, 2010).

Multitiered Screening Using the RSCA Index Scores A preventive screening model using the RSCA index scores (Prince-Embury, 2010) was presented in Doll, Pfohl, and Yoon's *Handbook for Youth Prevention Science* (2010). This model is briefly described below:

1. First Tier: Administer the RSCA on a school-wide or class-wide level and calculate global scale and index *T*-scores (see Prince-Embury, 2010).
2. Second Tier: If the vulnerability index score is *T*60 (high) or higher and if the emotional reactivity score is *T*60 or higher, then students may be identified for preventive intervention addressing management of emotional reactivity.
3. Third Tier: If the resource index is *T*40 (low) or below, examine the sense of mastery and sense of relatedness scale scores to determine specific areas for preventive intervention.
   (a) If the sense of mastery score is *T*40 or below, refer for preventive intervention pertaining to sense of mastery, self-efficacy, and adaptability.
   (b) If the sense of relatedness is *T*40 or below, refer for preventive intervention pertaining to sense of relatedness, social skills, communication skills, etc.

This preventive screening model begins with the vulnerability index score and follows up with the emotional reactivity scale score and the resource index score, taking the steps indicated above. To illustrate how the RSCA Index and scale scores might be used for screening, the following example is provided. Estimated numbers of students are based on cumulative percentages of scores obtained in the normative sample. If the RSCA was administered to a school population of 1000 at the beginning of the academic year, Tier 2 might identify 130 students (13 %) as having vulnerability index scores equal to or greater than *T*60, identifying them as potentially high in vulnerability and warranting preventive intervention. Of this identified group, many might also have emotional reactivity *T*-scores equal to or greater than *T*60. This group would be identified as potentially high in emotional reactivity and potentially in need of preventive intervention aimed at reducing emotional reactivity. As indicated in Tier 3, 110 students (11 % of total) would have resource index scores equal to or less than *T*40, suggesting that these students are low in resources and warrant preventive intervention to enhance resources. Approximately 85 (8.5 % of total) students might meet both criteria: vulnerability index and emotional reactivity scores of *T*60 or above, as well as resource index scores of *T*40 or below. Preventive intervention services might be offered based on the availability of resources.

The chapter thus far has discussed a conceptual model for assessment and application organized by developmental principles underlying personal resiliency. The second half of the chapter presents specific assessment and intervention approaches considered at different levels of implementation: school or system, classroom, and individual.

12.3 Resiliency Interventions at Different Levels of Implementation

The basic assumption underlying resilience-based interventions with children and youth in school contexts is that resiliency is not an immutable trait or end outcome, but rather a competency, a cognitive-behavioral style that can be learned by students and cultivated through supportive school and classroom environments (Prince-Embury, 2013a). From a practical standpoint, the view of resilience as "the everyday magic of ordinary, normative human resources" (Masten, 2001, p. 235) is applicable to all students. Apart from informing interventions for children who are already experiencing elevated risk or adversity, the recognition that all youth, regardless of their current circumstances, can benefit from developing greater resiliency and capacity to manage and adapt to their world gives schools an opportunity to engage in preventative action long before risks accumulate or problems develop (Brooks & Brooks, 2014; Mallin, Walker, & Levin, 2013).

12.3.1 Applications at the School or Systems Level

Given their central role in children's education and socialization, schools are the ideal venue for large-scale preventative efforts to promote children's resiliency and adaptation (Mallin et al., 2013; Schwean & Rodger, 2013). Although schools routinely implement evidence-based character-building and mental health promotion programs, many of them have not been systematically linked to the core resiliency constructs or assessment models (Prince-Embury & Saklofske, 2013, 2014). In this regard, social and emotional learning (SEL) programs represent a notable exception. As discussed previously, SEL and personal resiliency are overlapping concepts. These constructs differ in that resiliency is more often viewed in the context of adversity. Thus, resiliency was probably seen as less applicable in school environments as some definitions required the presence of an adverse context or circumstances. However, with the increased understanding of resilience as "ordinary magic" has come an increased understanding of adversity as everyday experience as well as obvious tragedy. For example, transition to a new school, bullying, being gay, or loss of a loved one require resiliency for many students. It is likely that the SEL rubric was more compatible with application in the school environment in that it framed social and emotional constructs as learnable skills, much like academic subjects, and thus appropriate for a learning environment. Similarly, resiliency as the ability to overcome obstacles may be broken down into teachable steps within the school environment.

The SEL approach to education is premised on the recognition that students' academic outcomes (i.e., school engagement, mastery of material, academic achievement) are significantly tied to their emotional and interpersonal functioning, in that when students feel overwhelmed emotionally or maladjusted socially, their

capacity to participate in and benefit from academic schooling also suffers (Greenberg et al., 2003; Zins, Bloodworth, Weissberg, & Walberg, 2004). The goal of SEL programs is to improve students' emotional, social, and academic outcomes by strengthening their personal resiliency resources in the emotional and relatedness domains (Merrell & Gueldner, 2010). The core socioemotional competencies targeted by SEL programs include self-awareness, self-management, social awareness, relationship skills, and responsible decision making. Thus, students are taught specific skills required for understanding and regulating one's emotions and behaviors, identifying and capitalizing on personal strengths and weaknesses, setting and achieving personal and academic goals, feeling and expressing empathy for others, establishing and maintaining rewarding interpersonal relationships, and making socially conscious choices and decisions (Collaborative for Academic, Social, and Emotional Learning [CASEL], 2013).

A recent meta-analysis of 213 controlled studies evaluating the outcomes of universal school-based SEL curricula found that well-implemented SEL programs resulted in decreased levels of emotional distress, depression, and anxiety; reduced instances of disruptive, noncompliant, and aggressive behavior; improved attitudes toward self, school, and others; stronger academic motivation and engagement; and an average 11-percentile point increase in academic grades (Durlak, Weissberg, Dymnicki, Taylor, & Schellinger, 2011). The most efficacious SEL programs utilize a blend of "within-person" strategies, such as explicit lessons that teach students social and emotional competencies directly, and "within-context" strategies, such as instructional practices that create classroom environments conducive to socioemotional learning (Devaney, O'Brien, Resnik, Keister, & Weissberg, 2006). In addition, successful SEL programs build in ample opportunities for students to practice their social and emotional skills both in regular classes (e.g., discussing emotional states of literary characters) and in other school settings (e.g., recess, playground, cafeteria) (CASEL, 2013). Recognizing the important role parents play in children's socialization, many SEL programs also include strategies to engage students' families, in order to extend children's socioemotional learning beyond the school (Albright & Weissberg, 2010). Practices to promote school-family collaboration include educating parents about the benefits of SEL, involving them in setting SEL goals for the school, and providing them with specific strategies to reinforce children's socioemotional competencies at home (Patrikakou, Weissberg, Redding, & Walberg, 2005).

The Collaborative for Academic, Social, and Emotional Learning (CASEL, 2013) has compiled a practitioners' guide to 19 universal school-based SEL programs, selected based on their rigorous multiyear design, availability of implementation supports, and documented positive impact on students' behavior and/or academic performance. This and other resources (e.g., Devaney et al., 2006; Merrell & Gueldner, 2010) can help administrators choose the right SEL program for their district/school. However, the choice of a well-designed SEL program does not in itself guarantee successful outcomes; the extent of the program's impact on students' social, emotional, and academic learning depends on how well it is implemented (Durlak et al., 2011). In turn, high-quality program implementation is

critically dependent on strong support from district/school leaders, who can champion SEL goals within and outside the school, develop infrastructure to support multiyear SEL programming and assessment, provide SEL training and professional development for teachers and staff, and promote systemic integration of SEL practices district/school-wide (CASEL, 2013; Devaney et al., 2006).

Large-scale program dissemination additionally requires buy-in from the various levels of government (Mallin et al., 2013). Given the availability of well-designed SEL programs and the growing research base supporting their efficacy, the SEL framework has seen a steady uptake at the policy level in recent years. In the USA, four states have adopted K-12 educational standards that emphasize social and emotional learning, and most other states have integrated SEL principles into existing standards for other subject areas (Dusenbury, Zadrazil, Mart, & Weissberg, 2011). In addition, the US federal government is currently considering the Academic, Social, and Emotional Learning Act of 2013, which will provide funding for SEL training and professional development of teachers and principals. In Canada, too, many provinces have adopted SEL benchmarks not only for students but also for school leaders and teaching professionals (e.g., British Columbia Ministry of Education, 2013; Ontario Ministry of Education, 2013). These recent policy changes signify an important shift toward greater system-wide effort to promote resilience in North American schools.

12.3.2 Applications at the Classroom Level

Positive classroom climate, caring teacher-student relationships, and stimulating learning environment, these are among the most frequently cited contextual factors that contribute to students' resilience and academic engagement (Song, Doll, & Marth, 2013; Sapienza & Masten, 2011). Importantly, all of these factors are within the educators' control and certainly the mandate of our schools. For this reason, most school-based prevention and intervention programs include a classroom-level component, which involves modifying various contextual and relational influences so as to create conditions that best foster students' sense of relatedness, mastery, and personal control (CASEL, 2013; Song, Sikorski, Doll, & Sikorski, 2014). These contextual and relational influences may range from structured physical spaces, instructional techniques, and classroom management practices to spontaneous teachable moments and teacher attitudes and expectations. To follow is a description of two empirically supported program approaches to promoting resiliency in the classroom: the Responsive Classroom and ClassMaps.

Responsive Classroom A notable example of well-designed, evidence-based classroom practices for enhancing children's resilience and learning is the Responsive Classroom approach developed by the Northeast Foundation for Children (NEFC, 1997). Responsive Classroom practices are based on the principle that children learn best in a safe, caring, and challenging environment that is

responsive to their social, emotional, and intellectual needs. Accordingly, the Responsive Classroom approach aims to alter daily routine, organization, and relational climate of the classroom in a way that enhances both teachers' self-efficacy and children's social and academic performance. For example, the practice of morning meetings is geared toward prosocial skills, community building, and sense of relatedness. Every morning, the class gathers for 30 min to greet one another by name (greeting), share personal news (sharing), and then join in a lively group activity that builds class cohesion and sets a positive tone for the day (group activity). During sharing, students take turns recounting personal news and responding to one another's accounts with questions and comments, while the teacher models and reinforces specific strategies for listening attentively and responding with care and respect. This daily routine is designed to help students practice empathy and communication skills, while fostering a sense of relatedness that comes with being appreciated and understood by one another (Kriete, 2002).

The Responsive Classroom approach to academic instruction and classroom management is proactive rather than reactive and collaborative rather than prescriptive, where students are consistently empowered to take ownership of their own learning and behavior. In academic activities, students are given structured choices over the topics they may pursue, tools they may use, or products they may create (academic choice) which may in turn enhance sense of mastery. In the matters of conduct, too, the teacher actively involves students in creating classroom and activity-specific rules, as well as ways of behaving in accordance with those rules and the consequences for not doing so (rule creation, logical consequences). Prior to undertaking a specific activity, the class is routinely directed to review the relevant rules and to practice the appropriate behaviors, in order to reduce the likelihood of subsequent misbehavior (interactive modeling). These student-centered practices are designed to create a sense of personal agency and responsibility in everything students do at school. In turn, when tasks are seen as intrinsic and meaningful, students are more invested in doing them and putting their best effort forward (Deci, Vallerand, Pelletier, & Ryan, 1991).

The same principles guide the Responsive Classroom approach to problem solving, where the teacher's goal is not to punish or correct misbehavior, but to teach students how to identify and solve their problems autonomously and without losing their dignity (collaborative problem solving). Rather than emphasizing what the student is doing wrong ("Don't do that"), which undermines competence, or telling the student what to do, which takes control away from the student, the teacher may remind the student of the relevant rules and redirect them toward appropriate behaviors ("Show me what you will do to uphold the rules"), thus giving the student an opportunity to demonstrate self-regulation and competence. For more enduring problems, the teacher may engage the student in a one-on-one problem-solving conference. In this technique, the teacher first states his/her observations of the student's behavior in a neutral nonjudgmental tone ("I notice that…") and then invites the student to provide their own thoughts on what is going on ("What do you notice?"), why they think it occurs ("Could it be…?"), and what they might do to resolve it. The student is then encouraged to try one of their own suggested solutions

and to choose a backup solution in case the first one does not work. This collaborative problem-solving approach is designed to teach students how to identify problems, consider different alternatives, and learn from the outcomes, while building a sense of self-efficacy for being able to change their situation for the better (NEFC, 1997; Shure & Aberson, 2013).

An important goal of the Responsive Classroom approach is to encourage teachers to consider the student's perspective and to reexamine their own assumptions about students' behavior. Teachers' beliefs and attributions influence their classroom interactions, which in turn have powerful effects on students' behavior and on the overall classroom climate (Goldstein & Brooks, 2007; McAuliffe, Hubbard, & Romano, 2009; Wiley, Tankersley, & Simms, 2012). Consider, for example, the case of a student, Jonathan, who frequently interrupts the class with endless questions (described by Brooks & Brooks, 2014). The teacher may assume that Jonathan does so deliberately to annoy the teacher, prompting disciplinary action. In contrast, the child's perspective may reveal that the question-asking behavior is driven by high anxiety about not being able to understand the material, combined with hyperactive-impulsive tendencies. In this case, the teacher's misinterpretation of Jonathan's behavior as defiant would not only fail to address his anxiety or meet his learning needs, but it might hurt his academic motivation and convey a negative image of him to his peers. To help teachers avoid unintentionally "punishing a suffering child" and instead become a "charismatic adult" in their students' lives, Brooks and Brooks (2014) encourage educators to ask themselves: "How would I feel if someone said or did to me what I just said or did to my student?", "When I say or do things with my students, am I doing so in a way that will help them realize I love and care about them?", and "Are all of the students in my classroom stronger because of things I've said or done today or are they less strong?". In much the same vein, Responsive Classroom practices (e.g., positive teacher language) are designed to help teachers adopt an empathic attitude toward their students and use nonjudgmental communication style that affirms students' dignity, efforts, and strengths (Denton, 2014).

The efficacy of Responsive Classroom practices has been supported in a series of controlled experiments and longitudinal studies of elementary classrooms (grades K through 4) in schools that have adopted this framework versus schools that did not. Teachers' use of Responsive Classroom practices was associated with improved quality of teacher-student interactions, more favorable student perceptions of the school, enhanced social skills, and improved performance on standardized reading and math tests (Abry, Rimm-Kaufman, Larsen, & Brewer, 2013; Brock, Nishida, Chiong, Grimm, & Rimm-Kaurman, 2008; Rimm-Kaufman & Chiu, 2007; Rimm-Kaufman, Fan, Chiu, & You, 2007). In addition to gains in student outcomes, the Responsive Classroom approach also contributed to greater teacher effectiveness. Teachers who used Responsive Classroom practices provided more emotional support to their students, held more positive attitudes toward their own teaching and the teaching profession in general, and had stronger commitment to promoting students' active learning, prosocial skills, and self-control (Curby, Rimm-Kaufman, & Abry, 2013; Rimm-Kaufman & Sawyer, 2004).

The impact of Responsive Classroom practices is stronger when they are applied school-wide (Wanless, Patton, Rimm-Kaufman, & Deutsch, 2013). However, an important advantage of this and other classroom-level interventions is that they can be implemented as stand-alone initiatives as well, carried out by individual teachers. This makes them particularly attractive for schools that do not have the requisite resources to roll out and maintain comprehensive SEL-type programming (Embry & Biglan, 2008). In either case, it is advisable that teachers receive adequate training in the appropriate skills and strategies, to maximize their capacity for nurturing resiliency in their students (CASEL, 2013; Song et al., 2014; Wanless et al., 2013).

ClassMaps ClassMaps, developed by Doll, Brehm, and Zucker (2014), is a data-based consultation model to help teachers modify ordinary classroom environments so that these are more resilience promoting. The strategy promotes resilience by assessing the classroom characteristics that enhance the developing child's relationships or support the child's emerging human agency. Subscales of the ClassMaps assessment represent several aspects of interactive resilience. Five subscales describe relational aspects of the classroom, including teacher-student relationships, peer friendships, peer conflict, worries about peer aggression, and home-school relationships. Three of the subscales describe autonomy characteristics, including academic self-efficacy, self-determination, and behavioral self-control. The underlying assumption of the ClassMaps approach is that helping teachers change their classrooms to be experienced as more resilience supporting will enhance the resiliency and learning of the students in the classroom.

Assessment data collected from students are used to identify limitations in the classroom's interpersonal relationships or its routines and practices that undermine student autonomy. Based on this needs assessment and drawing from the recommendations of students, classroom teachers can identify the aspects of the classroom that are the best targets for intervention. Then, because both teachers and students are highly familiar with classroom routines, they can propose changes that are likely to strengthen the classroom's relational and autonomy characteristics. Subsequently, classroom data can be used to monitor the impact that these changes have had and guide teachers' decisions to continue, intensify, or alter their plans for change.

An important focus of the ClassMaps Consultation research was the identification of a brief and technically sound assessment of these resilience-promoting characteristics of classrooms (Doll et al., 2014). ClassMaps is a 55-item anonymous student survey with eight subscales that are aggregated across students in the surveyed classroom. Three subscales assess the collective self-regulation of students in the class: academic efficacy (believing in me), academic self-determination (taking charge), and behavioral self-control (following class rules). Five subscales assess the classroom relationships: teacher-student relationships (my teacher), home-school relationships (talking with my parents), peer friendships (my classmates), peer conflict (kids in this class), and concerns about bullying (I worry that). Students select their response from a four-point scale (never, sometimes, often, almost always). When computer administered, the survey is completed by the entire class in about 15–20 min. The internal consistency, factor structure, and concurrent validity

of the full ClassMaps Survey and its subscales have been examined with elementary students (Doll, Spies, LeClair, Kurien, & Foley, 2010) and secondary students (Doll, Spies, Champion et al., 2010).

Teachers use data from the ClassMaps Survey to examine students' perceptions of the classroom resilience, and then they discuss the data with colleagues and/or the classrooms' students to check the accuracy of their understanding. Incidentally, sharing the classroom data provides teachers with alternative strategies for change, builds a support system for change, and fosters the students' ownership for classroom change. In response to identified weaknesses in the classroom's protective factors, teachers may elect to make microchanges (informal adjustments to classroom routines) or to implement manualized classroom interventions (which have been developed and examined in well-controlled classroom intervention research). Because the teachers are collecting data to monitor the effects of the interventions, they will know if a microchange was insufficient (and can transition to a more intensive manualized intervention) or if a manualized intervention was incompatible with the culture of the classroom (and can transition to a modified intervention that is sensitive to local conditions).

To date, evidence for the impact of ClassMaps Consultation has occurred through small-n research (Murphy, 2002; Nickolite & Doll, 2008) and case studies (Doll et al., 2014). With the availability of a new data curriculum, it will be possible to examine the impact of the procedure with larger groups of teachers using better controlled experimental designs. Ultimately, ClassMaps Consultation has the potential to embed protective factors into daily classroom environments, taking advantage of teachers' familiarity with their students' development and their expertise in classroom systems. The goal is to provide teachers with a process for classroom improvement that builds on the compelling research on developmental resiliency and infuses strengthened protective factors into school environments.

12.3.3 Applications at the Individual Level

Although safe and responsive school environments are vitally important in promoting positive development for all children, most resilience scholars agree that the effects of external protective factors are both mediated and moderated by the individual's subjective experiences (Brock et al., 2008; Brooks & Brooks, 2014; Masten, 2001; Prince-Embury, 2013b; Song et al., 2014). Indeed, resilient outcomes are often more strongly related to one's perceived competence rather than actual abilities (Bandura, 1993), perceived availability of social support rather than actual supports available (Cohen & Wills, 1985), and perceived degree of control over outcomes rather than actual event controllability (Lazarus & Folkman, 1984). From a practical standpoint, this implies that even when the classroom conditions are optimally conducive to promoting resiliency, individual students may need further intervention to help them internalize these conditions into a subjective sense of

self-efficacy, relatedness, adaptability, and personal control – qualities that make up a "resilient mindset" (Brooks & Goldstein, 2001).

In describing ways to foster resilient mindsets in individual children, Brooks, Goldstein, and colleagues (Brooks & Brooks, 2014; Brooks, Brooks, & Goldstein, 2012; Goldstein, Brooks, & DeVries, 2013) emphasize the importance of cultivating "islands of competence," or areas of personal strength, in every child. When individuals discover that they can be successful at something, particularly in an area that is important to them and valued by significant others, they are more likely to draw on that strength for global feelings of self-efficacy and self-worth, which subsequently spread to other areas of self-concept (McConnell, 2011). Accordingly, Brooks, Goldstein, and colleagues encourage teachers to make a list of their students' individual strengths and competencies and to come up with ways to reinforce those islands of competence in their everyday interactions with the students.

When attempting to change students' mindsets, it is important to understand the psychological mechanisms involved in the formation of self-referent cognitions. Although competence self-perceptions derive from multiple sources, personal mastery experiences exert by far the most powerful influence on self-efficacy beliefs (Bandura, 1993; Usher & Pajares, 2008). When students repeatedly achieve successful outcomes, their sense of competence is strengthened and so is their confidence in doing well in the future. In contrast, when students repeatedly fail in their attempts to achieve the desired outcomes, they begin to doubt their abilities and lose hope that things will change for the better. The resulting mindsets both contribute to and are perpetuated by subsequent experiences in a reciprocal fashion. Students who have developed a self-efficacious mindset are more likely to seek challenges, try harder, persevere in the face of setbacks, and ultimately fulfill their goals (Bandura, 1993). In contrast, equally able students who have come to believe that they have no control over their outcomes (i.e., helpless mindset) tend to avoid challenges, put forth less effort, give up after setbacks, and as a result are less likely to discover that they can affect positive change in their lives (Seligman, 1990).

In practice, this means that providing students with opportunities to experience success directly is the most effective and authentic way to build up their sense of mastery, competence, and personal control (Goldstein et al., 2013). An important caveat to remember here is that mastery experiences are inherently subjective, for the same level of performance may be interpreted as a success by one student and a failure by another (Usher & Pajares, 2008). These interpretations depend on a series of temporal, dimensional, and social comparisons students make in relation to their past performance, their performance in other areas, and performance of their peers (Möller, 2005). Students are more likely to experience increases in self-efficacy when their performance improves over time, when it is in the domain that is important to them, and when they are doing better than their classmates (Marsh, 2007). Students' interpretations of their performance also depend on adults' expectations for them: unrealistically high expectations set students up for failure regardless of how capable they are, whereas very low expectations trivialize students' success by

implying they are not capable of doing better (Goldstein et al., 2013). Indeed, the most powerful mastery experiences occur when students successfully overcome obstacles or accomplish challenging but manageable tasks (Bandura, 1993).

The attributions students make about causes of their successes and failures represent another source of individual differences in resilient mindsets (Brooks & Brooks, 2014). When students attribute their performance outcomes to factors that are within their personal control (e.g., effort, resources), they are more likely to internalize successes and treat failures as temporary setbacks and opportunities to learn. In contrast, when students attribute their performance outcomes to factors they cannot change (e.g., genes, luck), they are not only less likely to benefit from positive mastery experiences but also more likely to adopt self-defeating ways of coping with failure, such as disengagement, self-handicapping, or blaming others. Children acquire these attributional styles through vicarious observations and through explanations of successes and failures provided to them by significant others (Bandura, 1993; Frome & Eccles, 1988). Thus, teachers may become influential sources of resilient ways of thinking for their students, by modeling constructive ways of dealing with challenges and by emphasizing situations where a student's effort had a direct impact on the outcome (Brooks & Brooks, 2014; Goldstein et al., 2013).

Another salient source of students' self-efficacy beliefs is evaluative feedback received from significant others (Bandura, 1993; Usher & Pajares, 2008). At the very least, teachers may provide verbal encouragement to their students, communicating that they notice and value students' strengths and not just focus on their weaknesses. However, teachers also need to be aware that their verbal affirmations may not always appear welcome. Indeed, the very individuals who would benefit from encouragement the most, i.e., those with low self-esteem and little self-confidence, are often the least receptive to positive feedback, dismissing it as fundamentally incongruent with their sense of who they are (Swann, 1997). Likewise, individuals suffering from depression tend to be less accepting of others' expressions of love and support for them, which often elicits frustration and rejection by others and thereby reinforces the depressive mindset pervaded by feelings of shame and worthlessness (Joiner, Katz, & Lew, 1997). Regardless of individual circumstances, it is important to continue verbally affirming students' strengths, but at the same time recognizing that changing such negative mindsets may require more intensive cognitive-behavioral intervention (Goldstein et al., 2013).

An important take-home message for teachers is that while mastery experiences, effort attributions, and positive feedback may not always increase students' self-efficacy, repeated experiences of failure, attributions to lack of ability, and predominantly negative feedback are almost certain to erode students' self-worth (Usher & Pajares, 2008). It is for this reason that Brooks, Goldstein, and colleagues (Brooks & Brooks, 2014; Brooks et al., 2012; Goldstein et al., 2013) encourage teachers to focus their interventions not only on the areas where students are struggling but also on those islands of competence where students are already doing well and that matter to them a great deal. Once a foundation for mastery is established, a more resilient mindset will follow.

12.4 Summary

This chapter has discussed "resiliency" in the context of current and future applications in school settings. The first part of the chapter described the constructs of resilience/resiliency and presented a three-factor model of personal resiliency which simplifies the construct into three developmental systems that may in turn be used for focused application in schools. The Resiliency Scales for Children and Adolescents were then presented as a tool for preventive screening in schools that employ the three-factor model of personal resiliency. The second part of the chapter presented interventions, currently in use, that employ strength-based principles including aspects of resilience/resiliency. We acknowledge that the application of strength- and resilience-based models into the education system is an uneven process characterized by a different terminology, focus, technique, and level of application. We hope however that these differences do not impede the important process of integrating the science of resilience and strength building into an important pre-existing infrastructure for the education and development of our children.

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