Enhancing Resilience in Classrooms 23

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Schools have historically been the great equalizer in the American landscape—the "ticket out" for youth struggling to overcome conditions of adversity and poverty (Pianta & Walsh, 1998). For immigrants to the eastern seaboard, schools were safe havens where children learned English, received public health services, and became literate and employable (Pulliam & Van Patten, 2007). As each wave of homesteaders moved west across the country, schools popped up alongside the newly broken sod. Universal access to public education has been a defining feature of the North American culture, and schools are fertile settings for promoting the intellectual, psychological, and personal competence of youth (Masten & Coatsworth, 1998).

Poignant tales of schooling and learning have passed down through my own family. My grandmother told vivid stories of being 12 years old and traveling alone by train from her parents' land in Montana to central Kansas. In 1912, schools had not yet been built near their new homestead but, in Kansas, she could live with relatives and attend school. My father remembered riding a pony to a one-room Montana schoolhouse, and then going out at lunchtime to break the ice on the water bucket so that the horses could drink. At 18, he worked with his father for a mountain lumber company and, 65 years later, he was still grateful to the owner for telling him that he would be fired each fall and rehired each summer because he ought to be in college. My father would shake his head gently and remember, "He said I was too smart to be lumbering for the rest of my life."

Then, and now, schools are vested with the responsibility of ensuring the success of each generation's youth (Pianta & Walsh, 1998). Indeed, a central tenet of the No Child Left Behind Act (NCLB, Public Law No. 107-110, 115 Stat. 1425, 2002) was that schools are responsible for successfully teaching all children, regardless of their socioeconomic status, ethnicity, language, or parents' education. Threaded through contentious and passionate debates about the adequacy of schools and correctness of their practices, political will in the United States reiterates and reinforces the central importance of public education. To quote the prominent journalist, Dan Rather, children's dream for success "begins with a teacher who believes in you, who tugs and pushes and leads you to the next plateau, sometimes poking you with a sharp stick called truth." In response, schools do "deliberately intervene in children's lives" (Werner, 2006, p. 102), and they are entrusted by the public to do so.

The purpose of this chapter is to reframe this American dream around current research and conceptual frameworks of resilience, and to show how these frameworks can become a foundation for local micro-studies to identify classroom strategies

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that contribute to students' psychological wellness and strengthen their competence. This chapter uses Masten and Coatsworth's (1998) very simple definition of resilience: "Resilience is how children overcome adversity to achieve good developmental outcomes" (p. 205). This narrows the definition of resilience beyond its usage in the popular press. Within this definition, my own son and daughter would not be considered "resilient" although they are highly successful, because they have not struggled with any significant adversity in their first 3 decades of life. Alternatively, in many schools where I have worked, substantial numbers of children came to school hungry, frightened, with inadequate clothing, or with shocking memories of family or community violence or abuse. Resilience describes the conditions that allow these children to triumph nevertheless.

This chapter's translation from resilience research into classroom practices relies heavily on an essential assumption articulated by Egeland, Carlson, and Sroufe (1993) and reiterated by Pianta and Walsh (1998): Resilience emerges out of a constellation of child, family, and community factors. Consequently, practices to strengthen children's resilience are best integrated into the natural contexts where children live their daily lives (Masten, 2001). Moreover, it makes no sense to speak about resilience as a characteristic of children because children do not achieve resilience by "pulling themselves up by their own bootstraps" (Doll, Zucker, & Brehm, 2004). Instead, resilience is a characteristic that emerges out of the systemic interdependence of children with their families, communities, and schools.

This chapter examines resilience as a characteristic of school settings because schools dominate children's lives for at least 15,000 hours (Rutter, Maughan, Mortimore, Ouston, & Smith, 1979), and represent a secondary and highly important source of childhood caretaking. Even more narrowly, this chapter focuses very deliberately on resilience of classrooms. Other scholars have described the resilience of schools, school climates that promote wellness, and school–community partnerships that promote student success (Comer, Haynes, Joyner, & Ben-Avie, 1996; National Research Council/Institute of Medicine [NRC/IOM], 2004; Slavin & Madden, 2001). These are worthy endeavors. However, at its core, resilience often emerges out of very personal interactions that occur between children and adults, and between children and other children (Masten & Coatsworth, 1998; Pianta & Walsh, 1998). This gives special relevance to the daily classroom interactions that occur between and among adults and children.

The remainder of this chapter will first describe the characteristics of classrooms that make it possible for children to overcome adversity and experience success and competence. Next, we will describe the data-based decision-making strategy that we use to translate this definition into classroom practices, including how we conduct needs assessments of classrooms, the ways in which plans are crafted and put into place to strengthen classroom resilience, and the ways in which evaluations of the classroom changes are embedded into the strategy. Sprinkled throughout this description will be the lessons that we have learned in carrying out these classroom change strategies with teachers and students. We will close with a candid discussion of the research that we have not yet done—the next steps. Throughout the chapter, the singular focus of our work is to develop and refine a practical strategy that teachers can use (alone or in partnership with colleagues) to create classroom environments that predispose their students to success.

Classroom Conditions That Foster Resilience

A useful description of the classroom conditions that make it possible for children to succeed despite the odds can be culled from the past 50 years' developmental research on risk and resilience (Coie et al., 1993; Doll & Lyon, 1998; Werner, 2006). This tradition began with a large number of longitudinal studies, many initiated in the 1950s and 1960s that followed participants from their birth through adolescence or even adulthood. Werner (2006) describes ten of these large-scale studies that continue to follow their participants into the present. The essential

question examined in the studies was: what are the characteristics of children, their families, or their communities that predicted which children would be identified with disabilities or disturbances in adolescence or adulthood? Researchers gathered comprehensive data on the children, their family, their community at the time of birth, and then meticulously followed the children through decades. Results of these studies have been very competently summarized in Werner (2006). A brief and over-simplified synopsis is this: there was a remarkable concordance across the various studies conducted on different continents and with different predicted outcomes. Across the studies, the same 8–10 factors were potent predictors of childhood risk. Many of these factors were characteristics of families and communities rather than characteristics of individual children. Moreover, the number of factors rather than the precise combination of factors was a powerful indicator that the children were likely to succumb to risk. Thus, the results suggest that children could weather some adversity but were far more vulnerable when struggling with multiple adversities piled one on top of the other.

While the examination of risk was worthwhile in its own right, our operational framework for understanding classroom conditions that promote resilience grew out of a subsequent question began to be raised in the 1980s (Doll & Lyon, 1998; Werner, 2006). Each study had participants who were quite successful even though, by all rights and because they were growing up with multiple risk factors, they would have been predicted to fail. These were the resilient children. An important question was: What were the characteristics of children, their families, and their communities that predicted which children would overcome adversity and succeed? These characteristics have come to be called "protective factors" because, when present in sufficient numbers, they appear to insulate children from the deleterious effects of risk and make it more likely that they will grow into successful adults with ample education, rewarding vocations, satisfying family lives, and making important contributions to their communities.

Between eight and ten essential protective factors were identified in developmental resilience research (Werner, 2006). Several of these same factors were also identified in rigorous educational research as predictors of the academic success of students who experienced significant psychosocial disadvantages outside of school (NRC/IOM, 2004). Prominent among these are rewarding and caring relationships between and among the adults and children who populate a classroom. Within our operational definition of resilient classrooms, my colleagues and I have emphasized three of these relational characteristics as essential to resilient classrooms: (1) the quality of the relationships that exist between the teacher and students in the classroom; (2) the nature of the peer relationships that exist among classmates; and (3) the degree of collaboration and connectedness that exists between the classroom and students' families (Doll et al., 2004). Another important set of protective classroom practices are those that promote students' autonomy and self-regulation. Again, we have emphasized two of these autonomy characteristics as essential to resilient classrooms, (4) the degree to which the students are empowered to set goals and make decisions on their own behalf (academic self-determination); and (5) the degree to which the students' are supported in managing their own behavior (academic self-control). Finally, but equally importantly, resilient classrooms foster children's optimism and hope. Within our operational definition, we emphasize (6) the degree to which classrooms support students' confident expectations that they will succeed in class (academic efficacy). More extensive descriptions of these six characteristics of classroom resilience, and the research that underlies their selection, can be found in Doll, LeClair, and Kurien (2009) and Doll, Kurien, et al. (2009).

Translating Resilience Research into Classroom Practices

The central thesis of our work is that it is possible to deliberately embed these protective factors into the fabric of everyday practices in classrooms; and that doing so increases the likelihood that children

will learn and be successful in these classrooms even when they are struggling with many and very significant social and economic disadvantages (Doll et al., 2004). To implement these contextual changes within classrooms, we have adapted a familiar data-based problem-solving strategy that begins with a needs assessment to identify essential protective factors that are present or missing within a classroom, the data which are thoughtfully examined and interpreted by teachers in collaboration with their students and colleagues to become the basis for planned modifications in classroom practices that address the needs, the effects of which are carefully monitored by recollecting some of the needs assessment data. We think of this as a classroom micro-study in which members of the class conduct local research to verify that they are fostering a classroom environment that maximizes the competence and success of all students who are its members. All that is needed to put this micro-study framework into place are clear operational definitions of the classroom characteristics that act as protective factors; measures of these characteristics that are technically sound, meaningful, and practical to collect in classrooms; and a "toolbox" of classroom strategies and modifications that can strengthen those characteristics that are found to be wanting.

When described in these terms, our classroom change strategy is deceptive in its simplicity. The challenge is that all of these occur within the existing system of schools, in which classrooms exist within grade level teams which, in turn, exist within schools, then school districts, and then communities. Moreover, even though classrooms operate under the legitimate authority of teachers and administrators, classroom changes emerge transactionally out of the interactions of adults and children within and among each other. Thus, it is a very complex endeavor to implement classroom change strategies while simultaneously respecting the existing classroom system.

Classroom needs assessment: There is an essential, common sense reason for beginning classroom resilience interventions with a needs assessment: precious resources should never be squandered on strengthening protective factors that are already amply represented within a classroom. As an example, the majority of needs assessments that we have conducted in elementary schools have often shown that teachers' relationships with their students were exceptionally strong and caring (Doll, Spies, Champion, et al., 2010; Doll, Spies, LeClair, Kurien, & Foley, 2010). Similarly, in most classrooms, students had satisfying peer friendships within which they felt supported and appreciated. Simultaneously, students frequently reported that their classmates argued a lot with each other, picked on each other, and were often disruptive in the classroom. In these modal classrooms, the logical focus of classroom changes will be on these aspects of peer conflict and student disruption. This planful decision about where to intervene and what to strengthen is not necessarily the norm in classroom change programs. In too many cases, manualized preventive interventions are implemented in a standard format without regard to the strengths that already exist within a classroom. With the wisdom of a child, a fourth-grader told me why this is a problem, explaining "We really like you and we don't mind doing this stuff. But we think you ought to know—we already know this."

Within a data-based problem-solving cycle, the measures underlying the needs assessment must be simultaneously sound technically and practical to use. As a result, we have spent an inordinate amount of energy developing classwide measures of the six characteristics that are reliable, valid, brief, simple to collect, easily collated, and analyzed, with results that can be readily organized into a diagram or graph. A needs assessment that was highly time consuming would intrude into the instructional mission of classrooms, and that would prevent its use. If results of needs assessments were highly complicated, they would not "speak" to the teachers and children who populated the classroom, and so would not catalyze the suggestions for change. Given these constraints, we were impressed with the usefulness of anonymous student surveys that were aggregated across all students in a classroom.

The resulting ClassMaps Survey (Doll, Spies, Champion, et al., 2010; Doll, Spies, LeClair, et al.,

2010) is a 55-item anonymous student survey with eight subscales: three peer relationships subscales examining peer friendships in the classroom (My Classmates), peer conflict (Kids In This Class), and worries about being victimized (I Worry That); two other relationships subscales that examine teacher–student relationships (My Teacher) and parents' participation in students' learning (Talking With Parents); and three self-regulation subscales describing students' discipline (Following Class Rules), expectations for success (Believing in Me), and self-determination (Taking Charge). Students complete the survey by selecting "never," "sometimes," "often," or "almost always" for each item, and the results are aggregated across all students in a class. To ensure higher scores uniformly represent more supportive classroom environments, negative items are reverse coded. Early research has established that the resulting survey factors consistently into the six classroom characteristics have strong internal consistency (α ranges from 0.79 to 0.93 in elementary classrooms and from 0.82 to 0.91 in middle school classrooms), and correlates in predicted ways with other indices of the six characteristics.

The advantages of these aggregated classroom surveys are that they provide information that teachers are not always privy to—students' private perceptions of the support they experience from classmates and teachers, their personal sense of belonging and expectations of success, and their felt responsibility for charting their own course into academic success. Any single student's sense of their classroom emerges out of the interactions between their personal characteristics and temperament, and the social and behavioral contexts provided by the classroom. However, the collective experience of all students in a class is an invaluable barometer of the "felt experience" of the class as a whole and a stable reflection of classroom-level characteristics. Combined with teachers' own experience of the classroom, and focused very specifically on aspects of classrooms that have been linked to the success of students-at-risk, these intersecting perspectives begin to articulate the ecological system of the classroom in a way that is highly relevant to student resilience.

Ideally, using simple classroom data to reframe daily routines and practices can contribute to a classroom's efficiency as well as its effectiveness. Nevertheless, carving out time to collect data is very challenging in today's rushed classrooms and can become a significant barrier to a micro-study. Consequently, we are experimenting with a computer administration of an online ClassMaps Survey. We administer our beta version in one of a school's computer labs. Each student's computer station is logged onto the online ClassMaps Survey using a password and file name that is unique to the classroom teacher. Students wear headphones so that the survey is individually read to each of them as they proceed through the items. They click on their grade and gender, and then each item is displayed and read aloud, one at a time. As soon as students click on their answer, the program takes them to the next item. Once they answer the last item, a colorful "thank you" picture flashes up on the screen, signaling to the teacher that they have finished. The students then pull up one of the other instructional programs that the class is working on, while waiting for the classmates to finish the survey. When all the students are finished with the survey, the teacher can log onto the teacher screen, and immediately access and print graphs describing the class's responses to the surveys. Use of the online ClassMaps Survey cuts administration times to approximately 15 min for an elementary or middle school classroom, and the teachers can use their confidential password to access the summary data moments after the last student finishes.

Other measures could be used instead of the ClassMaps Survey within this micro-studies framework. Examples include school records of discipline reports, students possessive "votes" on the occurrence of teasing or arguments during recess, homework completion records, or playground maps on which the students have marked the places where students do or do not get along. Where these measures of one or more of the six classroom resilience characteristics were already available to the class, they were useful in addition to or instead of the ClassMaps Survey results. In other cases, teachers or students became

emboldened by their experiences with micro-studies, and began to write their own survey questions, specific to the unique needs of their class.

Planning for classroom modifications: The essential purpose of any micro-study is to enhance the protective factors in classrooms that contribute to students' academic, behavioral, and social success. There are three immediately obvious ways in which this might occur (Masten & Coatsworth, 1998): (a) by providing scaffolded assistance that allows students to act in more competent ways than they could achieve alone; (b) by removing the barriers to students' competence that might be embedded within the context; and (c) by refining the classroom definition of competence so that it matches developmentally appropriate expectations. Our original plans had been to simply show ClassMaps Survey results from the classroom to teachers, and to support them in crafting plans that might accomplish one or all of these three purposes in response to weaknesses identified in the data.

The simple act of showing teachers data about their classroom can be highly reactive. In our very early investigations of school playgrounds (Doll, Murphy, & Song, 2003), we had to carefully guard data describing recess problems from teachers' eyes or they would step in and "fix" the problems before the study's conclusion. Eventually, realizing that this was actually what we wanted, we began to deliberately share classroom data with teachers. In turn, they were quick to share the data with the students in simple classroom meetings. When this occurred, students' interpretations of the data's veracity and meaning, and their suggestions for effective solutions, were often quite different from those of the teachers. For example, teachers thought that a class needed more playground supervisors and stricter playground rule enforcement, and students thought that there needed to be more games so that students kept busy playing instead of fighting at recess. Teachers thought that there needed to be more serious consequences when students were inattentive and disruptive during mathematics period, but students thought that they were wiggly because the work was much too difficult and they were afraid of failing the weekly test. Classroom changes that took student perceptions into account alongside teacher perceptions were often simple and quickly effective.

Some teachers have been immediately comfortable with collecting and thinking about classroom data and quickly took leadership over their classroom micro-studies; other teachers have thought of "collecting data" as a very complex and time-consuming task, and were slow to look at and be responsive to their classrooms' results. Over time, we have learned to overtly market classroom data to be highly attractive and acceptable to reluctant classroom teachers. Classroom data are most attractive and more readily interpreted when displayed in graphs or figures than in long lists of tables. Data that are collapsed onto a single sheet of paper (one or two-sided) are most usable. Teachers' interest has been heightened when we have packaged their data into regularly scheduled newsletters printed in full color, annotated with graphics, with embedded comments describing other resources or material that we can make available upon request, and timed to coincide with teachers' existing school-improvement meetings.

Several master teachers showed us the critical importance of classroom meetings to classroom micro-studies. By including students in interpreting and planning from classroom data, the meetings broadened teachers' ecological perspectives on classroom practices and diversified the solutions that they used to strengthen classroom routines. We plan these classroom meetings around four simple questions to the students: is the classroom data accurate? What do students believe causes the strengths and weaknesses in the classroom? What could teachers do to make the classroom a better place for kids to learn? And, what could students do that would strengthen the classroom? Brief chart notes focused the students' attention on the questions, and the listed answers became permanent records that teachers could consult when planning classroom modifications. Students appreciated being included in the planning, and had a clearer sense of the purpose and potential of the classroom micro-study. As one seventh grader noted, "I get it now. This is all about trying to fix our school."

In this frame of mind, students were more receptive to the classroom changes that they owned and had helped to plan. Still while some student perspectives were refreshingly frank, others were more guarded, particularly as students became older and more self-conscious about their reputations with their classmates. In response, one inventive teacher supplemented the open class discussion with computer-aided "chats" in which students could type in additional private observations simultaneous with the open discussion. These private notes were particularly revealing in describing the cross-gender tensions that were heightened by a co-ed soccer game that dominated their recess.

Sometimes, simple but very necessary changes in classroom routines and practices were quickly apparent to teachers as soon as they leafed through their classroom data and discussed it with their students. Many of these could be implemented immediately—providing students with direct instruction in test-taking strategies; incorporating stress-reducing strategies into the preparations for an exam; arranging students in small groups or tables and vesting them with the responsibility for reminding each other of pending assignments or appointments; or adding more games to the recess playground. For example, in many schools where we have worked, playground soccer games were a common source of frequent and disturbing peer conflict. Students disagreed about what the "right" rules were for soccer; they struggled to find fair ways to choose balanced teams, they played soccer on fields that were too small (and the ball flew off into the middle of nearby ball courts or games) or that were too large (and students could not easily tell where the sidelines and goals were located). Students often spent so much time figuring out how to play soccer that they never had very much time left to play it. Often, these disagreements followed the students back into classroom instructional time. Teachers' solutions have included such common sense strategies as: researching the rules for soccer during the classroom social studies lesson; choosing teams every Monday and keeping the same teams for the full week; relocating the soccer field or marking it more clearly; dividing recess soccer into two separate games so that each field is less crowded.

In other classrooms, the needed changes were neither simple nor readily apparent to the teachers and they were quickly overwhelmed when confronted with classroom data describing weaknesses that they did not know how to address. One natural, systemic way to extend the number and quality of teachers' solutions was to pair them with two or three other teachers at similar grades, or to pair inexperienced teachers with an experienced master teacher. Within these peer-support groupings, teachers shared strategies that had previously proven successful in changing classroom relationships or autonomy. In other cases, a master teacher or a school mental health professional (school psychologist, school counselor, or school social worker) acted as a consultant to teacher teams who were conducting micro-studies in their classrooms. When we served this consultant role, we learned to bring one-page strategy sheets for classroom problems that were evident in a classroom's data. The top halves of the strategy sheets list 8–10 classroom modifications that teachers have used with good success to address similar problems; the bottom halves list routines and practices that have been described in the published literature. Rather than "teach" the solution lists, we simply laid them out on the table when teachers were planning and allowed teachers to scan them for strategies that seemed most relevant and about which they wanted more information. Then we described these strategies in more detail. In still other cases, teachers have asked us to go back into the literature and search for additional information or sources that meet a particular need in their classroom.

By far, the most common barrier to classroom change has been time—time for teachers to stop and reflect on their classroom environments, time to search out new information or gather together simple data, and time to implement changed routines. When classrooms lack the resources to implement a routine or practice that is too time consuming, we drew upon the untapped resource that is plentiful in almost every classroom—the time and energy of the students.

Indeed, our use of students has sometimes pushed the limits of reason and, to our surprise, they rarely disappointed us. As examples, students in both elementary and middle school grades have collected and collated simple data such as weekly "teasing thermometers" in which students rate the level of teasing in the classroom, or goal-achievement data in which students record their mastery of classroom academic standards. Students have created the graphs for the data, been "coaches" who remind classmates to carry out a new routine, served on advisory boards that conduct mini-studies of their own, searched out rule manuals for playground games, and written newsletters home for parents.

Implementing modified routines and practices and monitoring their impact: The best-made plans for classroom modifications have little impact unless they are actually acted upon. Planned classroom changes were more likely to be carried out if they were carefully written down, described as discrete steps, and clearly assigned to one or more person in the classroom. This written plan could also be used as a checklist that the teacher or a student used to check off steps as each was completed. Ultimately, the checklist recorded the degree to which the plan was followed with fidelity, and this record made it possible to interpret data describing the changes' impact within the context of what actually happened in the classroom. Still, fidelity is a bi-directional phenomenon. When planned changes were not carefully implemented, the fault sometimes lay with the plan itself. Plans were abandoned if they overreached the resources of a classroom. In one case, a school leadership team had planned to hold bi-weekly coordinating meetings with all of the paraprofessionals who supervised the recess playground at lunchtime. In fact, the supervisors' time was already scheduled into other student support activities and the school did not have the funds to pay for additional paraprofessional time to attend a meeting. Sometimes plans conflicted with the needs or interests of the teachers or students. For example, a fourth-grade classroom had created a teasing worksheet that walked students through a problem-solving conversation when they had become involved in a hurtful teasing incident. Half of the worksheet would be completed by the student who was teased and the other half would be completed by the student who did the teasing. However, none of the teasing worksheets was ever used. The students found a written worksheet to be a bit aversive, and so they simply talked through the recess problems to avoid completing the worksheet. Certain elements of plans were overlooked or deliberately omitted if these were over-ambitious, did not fit seamlessly into a classroom day, or competed with other demands on the classroom. The fact that this had occurred became obvious once the plan checklists were reviewed, and teachers could then focus their attention on what could be done to fix the plan or fix the implementation.

Once planned changes had been in place for between 4 and 6 weeks, simple evaluations were conducted to describe changes in the classrooms' targeted protective factors. At a minimum, the micro-studies collected pre–post data to verify whether classroom environments had improved during the time when the changed routine or practice was put into place. Thus, we deliberately designed the ClassMaps Survey so that any one of the subscales could be administered separate from the full survey, and most micro-studies re-collected only those subscales that were relevant to their planned changes. Comparisons of pre–post data were not sufficient to determine whether classroom modifications caused any improvements that were seen. However, on a very pragmatic level, the degree to which the changes are to blame for the improvements may not be an urgent question for teachers to answer. If the classroom modifications were convenient and fit seamlessly into the classroom's day, and the classroom relationships and autonomy were stronger, teachers' decisions to simply continue the modifications were reasonable ones. Alternatively, when the classroom modifications required significant resources, needed administrative consent, or represented a change in policy, teachers required a more ambitious evaluation. For example, by collecting classroom data repeatedly across brief intervals (e.g., daily or two or three times a week),

it was possible for teachers to examine trends in the data and determine whether improvements in the data co-occurred with the changed routine. Thus, classrooms sometimes created small mini-surveys of 1–3 questions and students were assigned to collect these daily. Alternatively, more sophisticated small-n research designs might be important to verify the need for an intervention, show size of the intervention's effect, examine the effect's persistence over time, show that the results could be replicated in other classrooms, or establish that the intervention is worth the cost for stakeholders like administrators, school-board members, or community representatives. Such results could justify the continuation of a less convenient but highly effective classroom modification.

In some cases, the micro-study results showed that nothing had changed or that the classroom's protective factors had deteriorated. In this event, a logical next step was to implement evidence-based intervention that rigorous, peer-reviewed studies have demonstrated to hold promise for strengthening classrooms' relationships, student autonomy, or expectations of success (Kratochwill & Stoiber, 2002). Several resources are available for identifying evidence-based educational interventions, including interventions listed on the website of the What Works Clearinghouse (www. whatworks.ed.gov), several Response-to-Intervention resources (e.g., www.interventioncentral.org); the Collaborative for Academic, Social and Emotional Learning (http://www.casel.org); and the UCLA Center for Mental Health in the Schools (http://smhp.psych.ucla.edu).

Next Steps

The rich tradition of research in developmental resilience holds special relevance to schooling because it establishes the characteristics of social and psychological environments that are optimal for children's capacity to overcome adversity. Our efforts to translate resilience research into classroom practices began by operationalizing its most robust and universal findings into a set of class-wide characteristics that could define a "resilient classroom." To date, our work has been dedicated to establishing that these characteristics of classrooms matter for children's learning, that they can be reliably and validly assessed, and that the results of these assessments can support practical plans to strengthen the classroom learning environment. In brief, we have worked to create a micro-study template that allows teachers and their students to empirically examine the resilience-promoting features of their own classroom.

Now, we are directing much of our attention towards carefully specifying the intervention strategies that teachers can use to strengthen the six classroom characteristics. Originally, we had assumed that this would require that we carefully "manualize" the micro-study consultation procedures; create sourcebooks of classroom routines, practices, and manualized interventions; and then implement these in large sample, random assignment, treatment-control studies. We anticipated that our most ambitious challenge would be specifying the consultative process in meticulous ways so that it could be replicated with good fidelity, all the while refining the procedures to be highly acceptable to classroom teachers. Instead, it has become increasingly apparent that our most difficult task has been to frame the micro-study procedures so that these accommodate the many diverse systems that exist within the classrooms. Clearly, one size does not fill all classrooms, and our micro-study procedures need to be innovative and flexible enough to fit the pragmatic realities of daily classroom practices. Ultimately, the success of the micro-studies will be sustained over time if teachers find the micro-study strategy to be viable, interesting, authentically relevant to their teaching, a strategy that saves them time and maximizes their impact with students—in short, a strategy that is worth their time.

Eighteen years ago, Coie et al. (1993) argued that practice ought to inform developmental research in the same way that developmental research ought to inform practice. Our most compelling lesson has been to listen carefully to teachers and their students, and thoughtfully attend to the wisdom in their observations about their classrooms, the change strategies

that they use, and the accommodations they have made to the micro-study procedures. Then, we have infused the best of these teacher-generated ideas into our framework so that its potential is enhanced. The micro-study strategy has become more effective when we have crafted balanced partnerships with teachers and, in some cases, with students, and they work alongside us as we translate developmental resilience research into classroom practices. In essence, it has been important that classroom practices inform our promotion of resilience as much as our research is informing classroom practices.

One particularly compelling question that we are addressing with teacher partners is this: Which of the six resilience-promoting characteristics ought be emphasized in plans to strengthen classroom resilience? Are each of these equally important for the classrooms' support for student success and competence? In addition, it is not yet clear whether or how the relative importance of these factors might shift from one school to another, one cultural community to another, across generations, for high vs. low risk youth, or given different outcomes indicators of success. Most of the current research on classroom effectiveness has only examined one of these characteristics, independent of the others. In real classrooms, though, these merge into a psychosocial climate and interventions to strengthen this climate must work with the complexity of the system.

The central purpose of our classroom change efforts is not merely to change school procedures, but to enhance youth success. We remain convinced that it is absolutely essential to draw broadly from developmental resilience research, and work carefully to apply educational and developmental research on classroom relationships and student autonomy. Much of the research on these domains has been academic and theoretical rather than practice oriented. Still, the act of translating this research into practice is shifting our frame of reference and inherently reshapes our understanding of resilience. In the final analysis, we expect that this will make our understanding of classroom resilience stronger.

Finally, an important feature of the micro-study strategy is that it is not a remedial strategy for struggling teachers. Instead, micro-studies provide committed teachers with one more tools that they can use to stretch their capacities as teachers, maximize the match between their students' needs and their classroom practices, and nudge their students towards rewarding and successful adulthood. Deliberately intervening to strengthen children's lives is an essential goal of most dedicated teachers.

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