

+Introduction

“We know that educators, even as they are overworked, provide a haven of safety and security for children who leave the school building to return to home environments complicated by poverty, racism, abuse, neglect, substance misuse, and mental illness. And while these caring adults can make all the difference in a single child’s life, a few educators cannot move mountains that must shift to establish a safe, more equitable and just future.”

- From Compassionate School Practices: Fostering Children’s Mental Health and Well-Being¹

Our nation is amid an unprecedented youth mental health crisis of staggering proportions.²

In a recent poll of high school students, 53% said they were “moderately,” “very,” or “extremely” worried about their mental health; 62% reported experiencing stress; 51% experienced anxiety, and 33% experienced depression.³ The Covid 19 pandemic and its associated social isolation, widespread death, and economic instability overwhelmed American youth resulting in an increase of 31% in emergency room visits for mental health reasons.⁴ Death by suicide is now the second leading cause of mortality for those aged 10-24;² annually there are one million attempted suicides and 40,000 suicide deaths, and an alarming one in four youth report having considered suicide in the prior 12 months.^{4,5} Moreover, people who commit acts of violence within schools frequently report their own long-standing experiences of suffering and alienation, with 78% having a history of suicide attempts or ideation, and 87% reporting severe and prolonged bullying.⁶ These violent events in school settings have devastating and long-lasting traumatic effects within and beyond those schools that are directly impacted – eroding the collective sense of physical and psychological of safety that is necessary for schools to be nurturing havens where children can learn, grow, and thrive.

In March 2022, just three months after the Surgeon General declared the state of youth mental health to be a national crisis,⁷ the U.S. Department of Health and Human Services launched a *National Tour to Strengthen Mental Health* and issued a **clear directive for educational leaders and youth mental health experts to join forces** in expanding the implementation of evidence-based practices that address youth mental health in school settings⁸—a message that was reinforced by six federal agencies on May 25, 2022.⁹ Although policymakers around the country have long advocated for SEL to be integrated into school-based curricula to meet the so-called “non-academic indicators” as required in the Every Student Succeeds Act (ESSA), as of 2019, only 15 states have mandated the inclusion of SEL or character education programs in schools and another 15 states have encouraged such programming. Movement from policy to action in this area is sorely lagging. In 2017, a national survey of school principals found that even though 97% of principals express strong support for embedding SEL in the culture of their schools, **only one in three was implementing it school-wide, and only one in four were meeting benchmarks for high-quality implementation.**¹⁰ This limited uptake of SEL into school curricula has been attributed to a lack of clarity on the comprehensive set of practices that constitute quality SEL and the lack of support, training, and guidance available to “make solid and effective school-wide implementation a reality.”¹⁰

The proposed project, the **Compassionate School Leadership Academy (CSLA)**, a joint endeavor of the *Center for Educational Improvement* and *Yale University Department of Psychiatry’s Program for Recovery and Community Health*, **offers an immediate and direct response to urgent needs of America’s youth by establishing a nation-wide network of educational leaders who are trained in *Compassionate School Practices (CSPs)*.** CSPs include and go beyond instruction in the main components of Social-Emotional Learning (SEL) to create

cultures of learning that are compassionate, trauma-informed, and evidence-based. The overarching aim of the CSLA project is to prepare school leaders in high-need districts to be culturally responsive and ready to implement trauma-conscious and evidence-based SEL leadership practices, resulting in increases in SEL competence and academic learning, and the well-being/self-care of students and staff. The CSLA combines curricula developed for CSPs with evidence-based implementation strategies to establish a framework for “elevating compassion through dialogue, policies, and protocol to address the needs of all...school community members.” (p xxiii,¹)

This proposal addresses Absolute Priority 2: Supporting Effective Principals or Other School Leaders, specifically providing principals or other school leaders with evidence-based professional development activities (sub-activity 2) and evidence-based professional enhancement activities leading to advanced credentialing (sub-activity 3). Additionally, this proposal will address the three Competitive Preference Priorities (CPPs): CPPA 1: Promoting educator diversity in classrooms across the Nation; CPPA 2: Preparing teachers to create inclusive, supportive, equitable, unbiased, and identity-safe learning environments for their students; and CPPA 3: Developing students’ social and emotional skills through the incorporation of pathways into teaching that provide a strong foundation in child and adolescent development and learning, including skills for implementing social and emotional learning strategies in the classroom.

(a) Quality of Project Design (35 points)

Our proposal builds upon more than two decades of collective experience and expertise in both content and research methodologies in the fields of education, school mental health, trauma, and Adverse Childhood Experiences (ACEs), person-centered psychiatry, neuroscience, community-based participatory action research, and implementation science. The CSLA will

advance the understanding of SEL implementation by providing, and evaluating the impact of, culturally competent evidence-based trainings, a rich repository of supporting resources, school-centered technical assistance, and interactive learning communities where leaders can support one another in their shared goal of advancing SEL curricula and Compassionate School Practices from theory to action to outcomes (See Appendix for the CSLA Theory of Action). Through these methods, the CSLA will change the landscape of professional development for educators by infusing compassion from the top down, while cultivating compassion from the ground up.

“School climates are dependent on the culture that district and school leaders perpetuate. The culture is a product of the underlying beliefs and values of a school; the climate is how those beliefs are translated into action.”¹

Evidence-Base for our Proposal

Based on **evidence without reservation** from the What Works Clearinghouse (WWC), our CSLA combines evidence-based professional development in SEL practices with innovative and evidence-based methods of technology transfer from the field of Implementation Science.

Social Emotional Learning. SEL is “the process through which all young people and adults acquire and apply the knowledge, skills, and attitudes to develop healthy identities, manage emotions and achieve personal and collective goals, feel and show empathy for others, establish and maintain supportive relationships, and make responsible and caring decisions.”¹¹ Research on SEL has shown that teaching empathy and compassion (for self and others) can create healthier learning environments, build social skills, and improve academic achievement.¹²⁻¹⁵ SEL is increasingly recognized as an evidence-based practice and there is growing consensus around its critical role in education, human development, and youth mental health.¹⁶⁻¹⁸ Whether it be a program that focuses on pro-social behavior, mindfulness, compassion, or related traits such as

empathy or resiliency, there are a number of evidence-based SEL programs designed to improve student health, learning, social skills, communication, problem solving, stress management, and a sense of well-being and belonging.^{12,19} There is a substantial body of research indicating that when implemented with fidelity, certain SEL components embedded within school curricula enhance both social-emotional development and academic learning among students.^{11,12,20-23} Additional research shows that pairing youth mental health awareness with evidence-based SEL techniques can significantly alleviate student distress, improve youth resilience, promote harm reduction, and ultimately promote school cultures that provide a sense of both physical safety and psychological well-being.^{24,25}

Evidence-based Technology & Knowledge Transfer: Implementation Science. Some variance in SEL uptake can be attributed to macro-level factors (e.g., federal and state regulations, fiscal and political environments), yet these factors do not explain observed differences between schools that exist within the same environments or communities.²⁶ Implementation scientists contend that variations in the social context of an organization (e.g., workforce attitudes, organizational culture and climate) may help to explain why some organizations are more effective in the adoption of new practices than others.^{26,27} We suggest further that the whole-scale transformation of schools into compassionate learning communities requires more than the simple add-on of specific SEL practices to existing teaching methods and school-based interventions.²⁸⁻³⁰ Moreover, established models tend to underestimate and fail to address the complex environmental changes needed to build resilience for students affected by trauma or other stressful life events.³¹

(a) Quality of Project Design (35 points)

Given the severity of our nation’s youth mental health crisis; the ongoing expansion of SEL requirements because of Every Student Succeeds Act (ESSA); increasing state and federal

mandates for schools to demonstrate the implementation of SEL; and clear demand from school principals and administrators for support and guidance in meeting these mandates, there has never been a more critical need for a proposal of this nature to facilitate the adoption of cutting-edge practices through CSLA.

The CSLA is based on research regarding the factors that improve well-being, executive functioning, and neuroplasticity among children and youth. These factors help students gain resiliency, alleviate trauma, and overcome barriers to learning and decision-making. The CSLA also employs evidence-based methods of knowledge transfer and diffusion of evidence-based practices from the field of implementation science. CSLA is designed to guide teams of natural and appointed school leaders and whole school communities through the process of making a transformational shift in changing the culture and climate of our schools.

The basis of the CSLA is formed by our work leading the Childhood Trauma Learning Collaborative (C-TLC), through the Substance Abuse and Mental Health Services Administration-funded Mental Health Technology Transfer Center. The aim of the C-TLC project was to prepare school personnel to improve the mental health of school-aged children in the New England region through three goals: 1) Foster alliances to address the needs of children and youth who have experienced or are at risk of experiencing significant trauma; 2) Provide publicly available, free training and technical assistance to early childhood, elementary, and secondary teachers, principals, school psychologists, and other school staff; and 3) Accelerate adoption and implementation of evidenced-based mental health practices through the C-TLC for New England. Key features of the design of the C-TLC were: 1) a Fellowship program for New England educators to receive intensive training and technical assistance; and 2) the limited use of the School-Compassionate Culture Analytical Tool for Educators (S-CCATE) to gather school climate data

throughout the region, monitor changes throughout the duration of the C-TLC, and identify areas of strength and need to inform future C-TLC activities to close gaps in mental health literacy. These two elements provide the foundation for the current proposed project, the CSLA.

The S-CCATE. The S-CCATE is a 40-item measure of school culture that helps to gauge connections and concrete support (protective factors) in times of need to further children’s social-emotional development. Designed to support professional development, the approach used with S-CCATE is to strengthen, value, and increase social-emotional competence, accelerate learning, and develop a sense of well-being for students, teachers, and the wider school community. Although many existing measures of school climate provide some parameters for improving student-teacher interactions to guide processes to improve the climate and students’ self-esteem, most assessments of SEL practices and school climate do not address the complex environmental changes needed to build resilience for students affected by trauma (Yu & Cantor, 2014).

S-CCATE was developed over six years based on social emotional learning research and input from focus groups and teams of principals, neuroscientists, mindfulness practitioners, and teachers. S-CCATE may be used two to three times during the academic year, providing formative data to guide instruction and implementation of protocol to improve social-emotional competence and school culture. With the S-CCATE teachers, administrators, school psychologists, social workers, teacher aides, and other staff log on to a secure platform and answer questions about themselves, their students, and school leadership according to their individual perceptions. S-CCATE data helps educators identify strengths; plan professional development and interventions, show improvements in school climate and social-emotional learning over time; and report progress on “non-academic” factors aligned with ESSA. With this online tool, schools receive data reports comparing local results to a national sample; receive a summary report of strengths and needs; and

receive recommendations and Action Guides for implementing changes within their schools.

In a national validation study, 814 educators completed the S-CCATE. An iterative exploratory factor analysis resulted in 40 items and five factors. With a Cronbach alpha for the final items of .948 and a Spearman-Brown projected internal consistency reliability of .94 for the 5 factors, the S-CCATE was validated as a robust measure of compassionate school climate. Principals and teachers were eager to have and use a tool to help them assess compassionate oriented care of their school. Since development, the S-CCATE has been used in approximately 100 schools and has demonstrated excellent internal consistency, reliability, and validity. Limited data are available, however, on the school/system-level factors that may promote or hinder school adoption of CSPs, or the degree to which CSPs are associated with student outcomes—objectives of the proposed research.

Multiple features make S-CCATE a uniquely effective tool for measuring and increasing compassion in school communities. First, it is designed to be used in conjunction with interventions with teams of educators in schools. Second, it is informed by up-to-date research on adverse childhood experiences, the neurobiology of trauma, and the impact of mindfulness on the effects of trauma. Third, the S-CCATE is the only assessment that measures all the following components: teachers' and students' knowledge of trauma, inequity, mindfulness, and neuroscience; the importance of ritual, consistency, and celebration; student understanding of emotions; the degree of effort to build confidence and courage; and applications of mindfulness to reduce stress. Finally, in addition to measuring levels of compassion, it is designed to build schoolwide knowledge, consensus, and protocol to further compassion, while also building a sense of community.

Combined with the CSLA, the S-CCATE is a vehicle for aiding school leaders and their staff in making effective decisions regarding the selection of evidenced-based interventions, monitoring progress, and in establishing compassionate school cultures that meet the social emotional needs of adolescents. See Table 1 for an overlap between the five S-CCATE factors and our CSLA training institutes.

Table 1. Overlap between S-CCATE Factors and CSLA Training Institutes	
Description/Focus	Coursework Examples
Institute: Leadership and Compassionate School Community	
<p>S.L.s will learn the principles of compassionate school leadership, which is a powerful tool to inspire teams to work productively towards the same goals. Using a transformational and principle-centered approach. S.L.s will examine their values, levels of self-compassion, and sense of compassion towards others to work with their teams of teachers to define shared values and policies that lay the framework for a compassionate school culture.</p>	<ul style="list-style-type: none"> • Compassionate School Practices: Fostering Children’s Mental Health and Well-Being • 2021-2022 Survey of the Childhood-Trauma Learning Collaborative (C-TLC) Fellows • Compassionate Leadership: Preventing and Addressing Compassion Fatigue and Burnout • Healthcare Workers and Educators Addressing and Reducing Trauma (HEART) Collective • Cultivating Compassionate School Communities that Respond to Trauma Effectively: Self-Guided Online Course
Institute: Conscious Awareness of Emotions & Stress	
<p>SL will systematically examine the foundational aspects of SEL focused on the neurobiology of trauma, developmental psychology, and understanding and management of emotions and stress. Children who understand their own emotions and stress are better able to handle feelings, are less likely to be overwhelmed and are more likely to focus on academics and meet academic expectations. This institute will assist S.L.s in expanding their awareness of these factors in SEL and academic performance and work to create action plans, policies, and programs that incorporate these learnings into the actionable and concrete classroom and school-based supports. Additionally, S.L.s will participate in activities and programs designed to help them better attune to their own and others’ emotional responses.</p>	<ul style="list-style-type: none"> • Classroom WISE: Well-Being Information and Strategies for Educators • Neurobiology and Executive Functioning • Poverty, Brain Development, and Early Interventions • Best Practices for Collaboration on School-Based Mental Health Supports for Schools and Healthcare Centers Using the

	Compassionate School Mental Health Model
Institute: Courage & Resilience	
<p>S.L.s will learn how to support students to develop a sense of courage and the power of being resilient in the face of failure and obstacles to student growth and well-being, including how this can be cultivated by giving students autonomy in decision-making and support from teachers that allows them to thrive in their zone of proximal development S.L.s will also learn strategies to be aware of and foster their own resiliency and support their own courage, which will prevent burnout and aid in promoting resiliency in their students</p>	<ul style="list-style-type: none"> • Back to School After COVID-19: Supporting Student and Staff Mental Health Toolkit • Schools This Year... Supporting Student and Staff Mental Health in Crisis: Tips for Educators and Mental Health Professionals • Resiliency in Students • Compassionate Schools Practices: Fostering Children’s Mental Health and Wellness • Giving Youth the Tools to Advocate for their Mental Well-Being
Institute: Confidence & Positivity	
<p>S.L.s will learn about the life events and experiences that reduce students’ self-confidence and sense of hope for the future and will practice strategies that encourage students, provide support, and help students improve their sense of self-worth and a sense of belonging S.L.s will also plan strategies such as metacognition to help students develop an awareness of their abilities and mindfulness and meditation, which can help reduce stress and negativity for all members of school communities, leading to greater confidence, self-esteem, and resilience</p>	<ul style="list-style-type: none"> • Five Mindful Habits for All to Increase Happiness and Connection • Demystifying Trauma-Informed Yoga • A Districtwide Approach to Coordinating Mindfulness Implementation: Spotlight on Montgomery County Public Schools • Mindfulness Practices in Schools • Back to School after COVID-19: Open Up with Optimism and Connection
Institute: Commitment to Equity, Rights, and Culture	
<p>S.L.s will examine the factors of inequity and inequality that contribute to stress, trauma, and discrimination within schools. Participants will be given opportunities to make personal connections with both present and past injustices, review their schools’ policies, procedures, and histories, and create action plans for achieving equity.</p>	<ul style="list-style-type: none"> • Stress, School, and Self-Care: COVID-19 Highlights Inequities, Mental Health Challenges, Systemic Needs, and Possible Solutions - Resource Guide • Diversity Talk: Using Data for Equity • Let’s Talk about Resilience: Overcoming Youth Mental Health Challenges in Rural Areas

	<ul style="list-style-type: none"> • Courageous Conversations: A partnering tool to achieve equity in schools • A Compassionate School Approach to Children’s Mental Health: Equity, Justice, and Overcoming Disparities
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(a1) Extent to which the training or professional development services to be provided by the proposed project are of sufficient quality, intensity, and duration to lead to improvements in practice among the recipients of those services.

Our CSLA is an intensive professional development initiative, with micro-credentialing that is followed by indefinite periods of less intensive support and participation in the CSLA learning communities. In the initial four months of intensive training, school leaders will engage with CSLA leaders on the development of an individualized compassionate school action plan. This plan will not only detail activities to be conducted at the school but will specify core training modules and additional tailored training modules that appointed leaders at each school will participate in. School leaders will complete several required courses, along with secondary, recommended coursework. In addition, they will participate in a monthly learning community where they present their action plan and progress to date, as well as discuss potential barriers to implementation, ways of overcoming these barriers, and, if needed, alternative pathways to success. The quality of the CSLA is of the highest caliber as they include training from content experts and trainings publicly available from recognized leaders in the field from organizations such as CASEL, NAESP, Latinos for Education, and Learning Forward.

This leadership development project will be implemented in 4 phases:

- 1- A national dissemination of the School-Compassionate Culture Analytical Tool for Educators (S-CCATE)

- 2- A demonstration project in which we will implement, assess, and culturally-adapt the CSLA to the needs of underserved, high need communities
- 3- A randomized controlled trial (RCT) of CSLA in 80 middle schools throughout the nation to examine its multi-level impact on student and educator outcomes.
- 4- Dissemination and Micro credentialing

Phase 1: National Assessment of CSPs: In the first phase of research, we will work with NAESP to conduct a survey of middle school principals and educators from a sample of at least 3,000 middle schools nationwide. These data will allow us to examine, at the aggregate, the relationship between the degree of implementation of CSPs and system, organization, educator, and student characteristics. Survey implementation will be conducted based on Dillman’s “Tailored Design Method”³² and will utilize repeated contacts to maximize the response rate. The P.I.s and NAESP will jointly email a preliminary letter and study materials to principals at each middle school in our sample to explain the research goals and expected benefits of the project and encourage participation. The investigative team has a great deal of experience in attaining high response rates in statewide and national studies. Using a similar strategy to that of [REDACTED] national Recovery-Oriented Practices in Mental Health Centers R01, principals will be asked to complete a brief online questionnaire (described below) and distribute the link to educators within their school. We estimate that the survey, which contains approximately 50 items, will take about 20 minutes to complete. One week after distributing the initial survey link, an email from the NAESP will be sent to principals reminding them about the study and encouraging participation. In the third week after survey distribution, follow-up telephone calls will be made to principals of schools from whom we have received minimal to no responses. Although we will not provide monetary compensation for participation (to avoid conflict with routine quality improvement strategies or

state regulations), schools that submit at least seven surveys will be entitled to receive a brief S-CCATE profile (see **Appendix**) that highlights key findings from their school based on our study data. In prior consultation with principals, we have found that most are eager to participate in such an evaluation, mainly when the topic is of high perceived importance to the field and data collection has a negligible burden on educators, guarantees the confidentiality of individual and school-level findings, and includes feedback after participation.

Phase 2. Demonstration Project. *The primary focus of Phase 2 research* is to examine the degree of fit between the existing training materials and measures and determine key elements that may need to be changed to ensure fit with implementation in underserved school districts. Training content, topics, measures, and methods will all be assessed for fit as we roll out the CSLA in 10 initial schools—5 in Michigan and 5 in Massachusetts—located in underserved, under-resourced districts and serve a high proportion of BIPOC students. Three educational leaders at these schools will join the CSLA. As we administer each component of the Academy, we will assess the degree of fit between the materials and resources we have selected, and the needs of the school communities and school leaders.

Following the protocol that was used both in the early phases of S-CCATE development and in our more recent work addressing mental health needs in schools in New England, project staff will provide a two-fold technical assistance approach: (1) coaching for school leadership teams and (2) networking with members of the CSLA. Work with each school will begin by reviewing the results of S-CCATE with school leaders and advising them about protocol and procedures for establishing Compassionate School Communities of Practice (CSCoP). These CSCoPs will include a core group of educators who will meet with school leaders and make decisions about ways to improve the school climate. For the demonstration project, staff will help

facilitate these team meetings, including helping teams make decisions about priorities for professional development to address S-CCATE findings.

Over the four months, CSCoP will meet regularly (weekly or bi-weekly) to review progress, problem-solve, and make decisions about how to refine the interventions for their local circumstances. Coaching will be available from project staff, who will help address specific needs as they arise. During these four months, school leaders will also meet virtually with their peers, with breakout sessions that address areas of need and interventions in their schools. As leaders are engaged in this process, they will have the opportunity to select from varying levels of professional development based on their specific preferences. Specifically, three levels of credentials will be offered: 1) Level I will include completion of six, four-hour online courses on compassionate school leadership, 2) Level 2 includes the addition of participation in the CSLA and a supervised internship project and 3) Level 3 builds on Levels 1 and 2, with the additional requirement to receive training as a mentor, with a CSL mentoring project.

At the end of the four months, the S-CCATE will be re-administered, and results and S-CCATE recommendations will be reviewed with leaders from each school to review progress and help them make decisions about whether to continue with more intensive work or to move on to address another aspect of school climate as identified by the S-CCATE administration. Project researchers and evaluators will review results from the demonstration project and recommend any needed refinement before proceeding to Phase 3.

Phase 3. Stepped Wedge Randomized Control Trial of Compassionate School Leadership Academy.

In this final phase of research, 80 schools will be randomly selected from the pool of eligible applicants who responded to our Phase 1 survey to participate in the intensive Leadership Academy (CSLA). These 80 schools will be randomly assigned to one of three conditions: 1) Wave 1 CLSA implementation (n = 20 schools), 2) Wave 2 CLSA implementation (n = 20 schools), or 3) Assessment and Self-guided learning (n = 40). For our proposed research, we have identified measures and sources of administrative data for each element in our conceptual model and have mechanisms in place to collect these data at key points throughout the study. Our research design will allow us to determine which components, or combinations thereof, may be most associated with the uptake of CSPs and outcomes.

Our *stepped wedge randomized controlled design (RCT)* allows systematic incorporation of end-user feedback between phases using a Plan-Do-Study-Act (PDSA)¹⁰¹ program development and evaluation model. PDSA creates a learning environment among stakeholders within which evaluation data are routinely shared and refinements or adjustments are made to address potential problems with implementation, utilization, or uptake. The stepped wedge design provides a *robust mechanism for examining both within and between-subject differences* in targets, behaviors, and outcomes. It builds in periods of analyses, interpretation, and stakeholder feedback for optimizing the intervention prior to the subsequent wave of deployment. This design allows for examining both within- and between- participant variations in targets and outcomes over time, with individuals in later waves of implementation serving as non-treatment controls for those in earlier waves. This design allows for both a test of replicability and greater statistical power to examine the impact on individuals' sub-populations (i.e., based on gender, race, ethnicity, and diagnosis).

Phase 4. Dissemination and Micro credentialing

During Phases 1-3, educational leaders will have opportunities to receive three levels of micro credentialing: Level 1 CSLA credentialing based on completion of 6 online modules (approximately 4 hours each) on leadership to develop culturally competent compassionate school environments; Level II CSLA credentialing will be granted to Demonstration and Phase 2 and 3 leaders who complete the six online Level 1 courses and also complete an internship level project in their schools and Level III for leaders who complete Level II and want to go on to mentor or coach others. We will work with our Advisory Council and educational leaders to ensure that the standards for micro credentialing meet national expectations and criteria. Note that the materials used for micro credentialing are all evidence based. Many of the components were developed as a part of our national work with the Mental Health Technology Transfer Center. (See Appendix x)

(a2) The extent to which the proposed project is designed to build capacity and yield results that will extend beyond the period of Federal financial assistance.

The CSLA is designed to be self-sustaining in that initial cohorts of trainees earn micro-credentials that enable them to provide coaching to new cohorts of schools. The learning communities continue indefinitely and are designed to share knowledge between schools that have gone through more curriculum to those newly admitted. Additionally, the three levels of micro credentialing will be available after the project ends. During the three project years, staff and our partners will be networking with national and state leaders, including school district and state superintendents of education, to ensure that the CSLA process and components, including S-CCATE, are available to and accepted as ESSA evidence in individual states and nationally.

(a3) Extent to which there is a conceptual framework underlying the proposed research or demonstration activities and the quality of that framework.

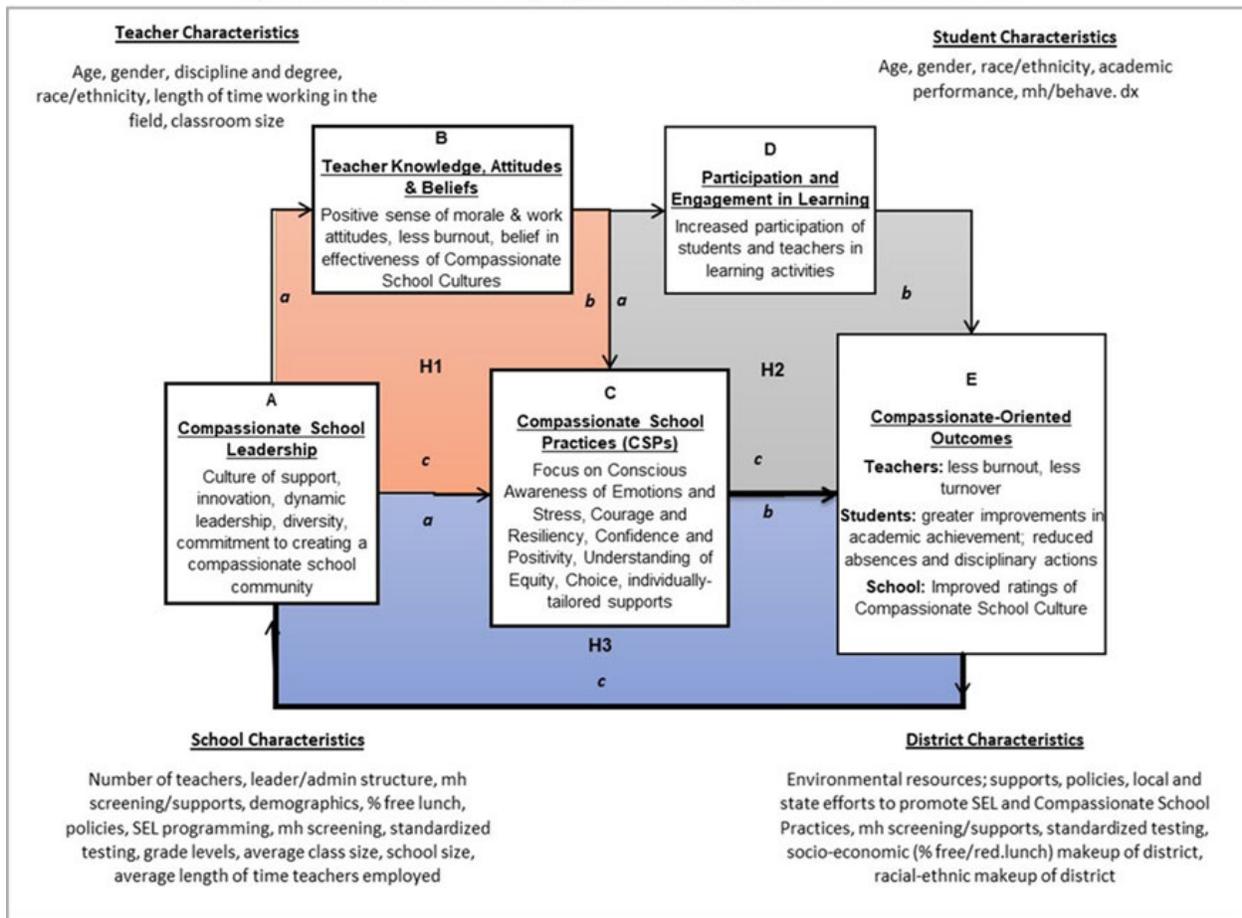
Our proposed research is guided by a socio-technical model of organizational effectiveness and previous research conducted by Aarons, Glisson, and colleagues on implementing evidence-

based practices in organizations.^{26,27,33-36} Our theoretical model of the diffusion of compassionate practices in schools (**Figure 1**) depicts the critical links between leadership characteristics (A); teacher knowledge, attitudes, and beliefs (B); the implementation of Compassionate School Practices (CSPs) (C); teacher and student participation/engagement in learning (D); and compassionate-oriented outcomes at the levels of the schools, teachers, and students (E)—all of which may be moderated by the characteristics of teachers and students, and the larger ecosystem within which classrooms are embedded (School and District characteristics). In our model, Area H1 depicts the relationships between leadership characteristics (A) and implementation of CSPs (C), which we hypothesize will be mediated by educator knowledge, attitudes, and beliefs (b). Area H2 shows the relationships between CSPs (C) and outcomes at the level of students, teachers, and schools (E), hypothesized to be mediated by participation and engagement (D). Area H3 depicts our hypothesis that the degree to which a leadership framework of Compassion (A) is associated with student outcomes (E) is mediated by the delivery of CSPs (C). We also expect that these relationships are moderated by the characteristics of students, teachers, administrators, schools, and districts.

Compassionate School Leadership (A). Implementation scientists assert that the effective implementation of new technology or interventions depends as much on the organization's characteristics as on the characteristics of the intervention.³⁶ When applied to a school environment, organizational social contexts include things such as individual and shared perceptions of the school's impact on individual well-being (culture and climate), ways in which the work is done and expected to be conducted, individual teacher attitudes (job satisfaction and organizational commitment), leadership styles, and readiness to change. Previous research has identified several organizational features associated with the successful implementation of

EBPs.^{27,36} These include transformational and innovative leadership; flexible, proficient, and less resistant organizational culture (e.g., greater teacher discretion in carrying out job responsibilities, expectations of placing client well-being first and having up to date knowledge, greater openness to change); and individual perceptions of engaged and functional climates (e.g., teachers have a sense of accomplishment, more personalized perceptions of students, opportunities for advancement, role clarity, feelings of cooperation). Such factors have been positively associated with teacher morale, job satisfaction, and degree of commitment to a school.

Figure 1. Theoretical Model of Agency Diffusion of Compassionate Practices in Schools



Adding knowledge from our own research on Compassionate School Practices (C) (CSPs), we expect that a shift to a compassionate framework will require a school climate that: a) is perceived by educators as ripe for change; b) has a leadership style that supports innovation and

risk-taking among both staff and educators; c) encourages educators to believe in the ability of students and the efficacy of compassionate learning practices; d) has flexible and compassionate oriented structures; and e) includes a commitment to nurturing a compassionate-oriented culture through school practices, communications, and policies (e.g., person-first language in policies, procedures, and mission statements). Shifts in organizational culture can be cultivated through innovative leadership, education and training, and the installation of critical feedback loops about the kinds of activities that lead to enhanced student outcomes.

Educator Knowledge, Attitudes and Beliefs (B). While there is significant variability in teacher characteristics and readiness to implement new practices, teacher morale, attitudes toward organizational change, and perceptions of the school's capacity for change play critical roles in the dynamics of innovation.³⁷⁻⁴⁰ Compassionate teachers promote access to SEL by removing barriers to receiving SEL and promoting the factors that facilitate connection. Engagement involves connecting with the student rather than the deficit, building trust over time, attending to a student's stated goals and needs, and, directly or indirectly, providing a range of activities in addition to standard curricula.

Compassionate School Practices (C). Several groups around the country, including ours, have attempted to translate the elements of compassion into core principles that can guide school practices. All agree that an essential characteristic of compassionate school culture is the primacy **of the participation of key stakeholders in all aspects and phases of the care delivery process.** Participation ranges from the initial framing of questions or problems to be addressed to the delivery, evaluation, monitoring of outcomes and the design and development of new interventions. As mentioned above, our previous research identified five primary domains of a Compassionate School Climate: 1) Creating a Compassionate School **Community** through

Leadership, Policies, and Structure; 2) **Conscious** Awareness and Communication of Emotions and Stress and Trauma, 3) **Courage**, Resiliency, and Protection 4) **Confidence**, Positivity, and Compassion, 5) Commitment to Equity, Rights, and **Culture**.

Participation and Engagement in Learning (D). In a Compassionate School Climate, engagement in educational activities and fidelity to practice components are hypothesized to be more significant factors because, in such a system, **educators play a central role in developing the action plan and choosing the methods of delivery and implementation provided.** Research has shown that the more individuals are involved in making decisions and choosing pathways forward, the more they are satisfied with and engaged they are with the activity, resulting in better outcomes.⁴¹

Compassionate-Oriented Outcomes (E). Compassionate-oriented outcomes are strength-based, focused on achieving individual goals, and measured by the positive gains in one's life and educational practice, not simply by removing or reducing something undesirable (i.e., disciplinary actions, suspension days). Given this, it is essential to examine outcome variables such as student and teacher well-being, happiness, feelings of empowerment and agency, social support, and more traditional measures of achievement like standardized testing scores and grades.

Student, Teacher, School, and District-level Moderators. Potential moderators of the relationships outlined in **Figure 1** include characteristics of school districts (environmental resources; supports, policies, local and state efforts to promote SEL and Compassionate School Practices, mental health screening/supports, standardized testing, socio-economic makeup of the district, racial-ethnic makeup of district); characteristics of schools (number of teachers, leader/admin structure, mental health screening/supports, demographics, % free lunch, policies, SEL programming, standardized testing, grade levels, average class size, school size, average

length of time teachers employed); characteristics of teachers (age, gender, discipline and degree, race/ethnicity, length of time working in the field, classroom size); and characteristics of students (age, gender, race/ethnicity, academic performance, mental/behavioral diagnoses).

(a4) The extent to which the services to be provided by the proposed project involve the collaboration of appropriate partners for maximizing the effectiveness of project services.

The Center for Educational Improvement (CEI), a collaborative of educators and researchers actively engaging in creating a transformational system of education, and the Yale University's Program for Recovery and Community Health (PRCH), an international leader in the conceptualization and implementation of person-centered practices and organizational change, are uniquely positioned to implement this project due to our close collaboration during the past four years on a project to develop school capacity to address the mental health needs of children and youth in school settings across the New England region.

Our team of investigators and consultants bring together substantial experience to inform and support the aims of the proposed project. We have assembled a team that includes academic researchers in the areas of mental health, organizational and implementation science, school climate and social emotional learning, principal leadership, and the examination of large-scale national datasets. [REDACTED], Ph.D. (co-PI) is the Executive Director of the Center for Educational Improvement and an Assistant Clinical Professor for Yale-PRCH. She has facilitated networking with the New England Mental Health Technology Transfer Center's Childhood-Trauma Learning Collaborative to develop compassionate school environments and has led many social-emotional learning initiatives focusing on teen suicide and advancing visionary leadership. She has also guided the development of the online assessment of the degree to which Compassionate School Practices are being implemented in schools, which we propose to

implement in this research. [REDACTED] Ph.D. (co-PI), is an Associate Professor at Yale University and the Director of Research and Evaluation for Yale-PRCH. [REDACTED] has gained an international reputation as an expert in the organizational assessment of recovery-oriented practices and their relation to individual-level change and outcomes, has conducted large scale, nationwide organizational assessments of recovery-oriented practices with NIMH R01 funding, and has received multiple awards from SAMHSA, PCORI, and other federal institutes to support her work. [REDACTED] PsyD, Director of Systems Change, is a national expert on transformational change and has facilitated the design, implementation, and evaluation of services that promote self-determination and community inclusion. [REDACTED] Ph.D., is the Director of the Student Mental Health initiative at the New England Mental Health Technology Transfer Center (MTTC) and has orchestrated the evolution of the Childhood-Trauma Learning Collaborative, including establishing the HEART Collective to bring mental health providers and educators together to better integrate mental health services into schools. Paul Liabenow, the Executive Director of the Michigan Elementary and Middle School Principals Association, and [REDACTED], a leader of the Social-Emotional Learning Alliance for Massachusetts (SEL4MA), will facilitate the implementation of the project in their respective states and nationally. The project is also supported by content experts, including Maria Restrepo, the current Director of the New England MHTTC, and Drs. Hilary Hodgdon, Orinthia Harris, Janan Wyatt, and Noor Jones-Bey in neuroscience, antiracism in education, and cultural competence.

(a5) Extent to which the design of the proposed project is appropriate to, and will successfully address, the needs of the target population or other identified needs.

The CSLA initiative targets school leaders and youth in middle schools across the country—a time in adolescence when youth, and particularly those who have experienced significant trauma, are likely to engage in risky behaviors (alcohol/drug use, self-injury) that

contribute to arrests, delinquency, and a decrease in the ability to cope effectively during this developmental stage.^{42,43} By targeting early adolescence, with a significant effort to form compassionate school communities, doors open to the possibility of effective early intervention for youth most in need of positive supports.

The current proposal will continue to build upon this foundation by employing Community-Based Participatory Action Research (PAR) where **knowledge, leadership, and voices of stakeholders impact all aspects of the research** and decision-making and will ensure that **adaptations or refinements made to the intervention, protocol, and tools** are done according to the needs of those most impacted by the intervention.

(b) Significance (25 points)

(b1) The importance or magnitude of the results or outcomes likely to be attained by the proposed project, especially improvements in teaching and student achievement.

The proposed project will be the first nation-wide study of the relationship between organizational and individual factors in the implementation of compassionate-oriented practices and the impact of compassionate school culture on student achievement and well-being. Our interdisciplinary collaboration among nationally and strategically poised collaborators in science and education will help to ensure the knowledge gained from this research is relevant and will be rapidly disseminated among all levels of the education system. The proposed research is also innovative and relies on existing datasets to provide information about the outer context. It builds upon an established conceptual model for examining organizational change, relies on existing datasets to provide information about the outer context, and examines potential mediators and moderators of positive student, teacher, and school-based outcomes. With our innovative stepped-wedge randomized control trial design, along with the participation of student, teacher, principal, and administrator stakeholders in our advisory board, this research has the potential to **shift**

current educational practice paradigms to a more compassionate-oriented framework through the identification of those factors that most influence the implementation of effective CSPs.

(b2) The extent to which the costs are reasonable in relation to the number of persons to be served and the anticipated results and benefits.

The cost of this innovation is approximately \$850,000 per year or \$2.56 million. Over the three years of the initiative, we anticipate that 300+ school leaders will be credentialed at Level I (completion of 6 courses), 150 leaders will complete the leadership academy, and 50 will be certified as CSL Coaches. During the 3 years, over 15,000 staff and 375,000 students will receive services at the 150 schools (150 schools x 100 staff/school x 25 students per staff), at the cost of \$6.82 per student. Further, changes will be amplified by the capacity of schools to continue these practices with refinements on an ongoing basis.

(b3) The potential for the incorporation of project purposes, activities, or benefits into the ongoing program of the agency or organization at the end of the Federal funding.

Sustainability is enhanced through several components: the ongoing availability of the S-CCATE at www.s-ccate.org and micro credentialing the networking that will occur not only with the leaders within the CSLA but also with networking with major agencies services, school leaders as well as organizations such as CASEL and networking with the U.S. Department of Education and state and local educational agencies.

(b4) The extent to which the results of the proposed project are to be disseminated in ways that will enable others to use the information or strategies

Dissemination will occur primarily in Year 3, and will include presentations to national conferences, blog posts and articles, research reports and articles, podcasts, and announcements of the availability of the S-CCATE and its value in supporting evidence-based practices. Further,

members from the CSLA will be supported by coaches who receive the Level 3 mentoring credential, with opportunities to continuously participate in ongoing CSLA programs.

(c) Quality of the Management Plan (20 points)

(c1) Extent to which the goals, objectives, and outcomes to be achieved by the proposed project are specified and measurable

Goal 1. To provide immediate, comprehensive assessment, and individualized resources to middle schools across the country	
Process Objectives	Outcome Objectives
<p>P1.1. In Year 1, disseminate School-Compassionate Culture Analytic Evaluation (S-CCATE) to 3,000 middle schools principals and administrators nation-wide.</p> <p>P1.2 In Year 1, collect approximately 8,250 responses to the S-CCATE from educators and administrators at 1,500 schools about key individual, school, and district demographic information, as well as assessments of the degree to which schools reflect a Compassionate school culture.</p> <p>P1.3 Conduct a demonstration project of the CSLA in 10 schools (5 in Michigan and 5 in Massachusetts) that meet eligibility criteria</p>	<p>O1.1. By the end of Year 1, at least 75% of the educators in responding schools will report that the assessment and individualized resources from the S-CCATE are useful and that they intend to make changes to the school functioning based on the results.</p> <p>O1.2. In each of Years 3-5, at least 85% of schools in which educators reported making changes based on the S-CCATE results will maintain these changes.</p> <p>O1.3 In each of Years 2-3, the demonstration project will provide formative data that will be used for program improvement across the implementing schools.</p>
Goal 2. To establish the evidence base for leadership empowerment model of technology transfer that allows for rapid diffusion of trauma-informed, SEL practices into middle schools located in traditionally underserved, ethnically, and racially diverse communities.	
Process Objectives	Outcome Objectives
<p>P2.1 In Year 1, identify and randomly assign a sample of 80 schools from the qualifying applicants to participate in a randomized control trial study designed to test the effectiveness of the Compassionate School Leadership Academy (CSLA) model.</p> <p>P2.2 In Year 2, 20 school leaders in the treatment group will participate in the CSLA model and will receive comprehensive supports; In Year 3, the remaining 20 school leaders in the treatment group will participate in the CSLA model and receive comprehensive supports; and 40 schools randomized into the control condition will receive continuous assessment, feedback, and self-guidance on recommendations.</p>	<p>O2.1 By the end of Year 3, treatment schools will demonstrate significantly higher scores or rates than control schools across the following:</p> <ul style="list-style-type: none"> • Compassionate school climate scores, as measured by the S-CCATE • School-day attendance rates • Staff retention rates <p>O2.2 By the end of Year 3, treatment schools will demonstrate significantly lower schoolwide discipline actions, including in-school and out-of-school suspensions, and teacher turnover rates, than control schools.</p> <p>O2.3 In each of Years 2 and 3, at least 90% of participating school administrators will report the following:</p> <ul style="list-style-type: none"> - better understanding of the needs of their schools -increased commitment to a compassionate school community

	<p>-increased commitment to diversity</p> <p>O2.4 In each of Years 2 and 3, teachers in participating schools will demonstrate significant improvements in their sense of morale and work attitudes and belief in the effectiveness of Compassionate School Culture.</p> <p>O2.5 In each of Years 2 and 3, teachers in participating schools will demonstrate significant reductions in burnout.</p> <p>O2.6 By the end of Year 3, students in treatment schools will demonstrate significantly higher school day attendance and academic achievement and significantly fewer disciplinary actions than students in control schools.</p>
Goal 3. Broadly disseminate findings and ensure program sustainability.	
Process Objectives	Outcome Objectives
<p>P3.1 Establish 3 tiers of Micro credentialing in CSLP (Compassionate School Leadership Practices)</p> <p>P3.2 By the end of Year 3, conduct 20 presentations (virtual and in -person at national conferences, to school principals and others.</p> <p>P3.3 By the end of Year 3, develop 10 publications in research journals, podcasts, blogs, newsletter articles</p>	<p>O3.1 In each of Years 2-3, the demonstration project will provide formative data that will be used for program improvement across the implementing schools.</p> <p>O3.2. By the end of Year 3, 100 educators will receive micro credentialing in each of the 3 tiers</p> <p>O3.3 By the end of year 3, participating schools will see reduced rates of teacher turnover</p>

(c2) The adequacy of the management plan to achieve the objectives of the proposed project on time and within budget, including clearly defined responsibilities, timelines, and milestones for accomplishing project tasks.

CSLA Project Goals	Table X. Timeline of Activities											
	Quarter	Year 1				Year 2				Year 3		
	1	2	3	4	1	2	3	4	1	2	3	4
Phase 1. National Distribution of S-CCATE												
Goal 1: S-CCATE Assessment & Distribution of Individualized Feedback and Resources	Identification & recruitment of 5,000 Middle Schools for S-CCATE completion											
	Distribution of S-CCATE											
	S-CCATE feedback reports & resources given to participating schools											
	Assessment of S-CCATE Feedback implementation											
Phase 2. CSLA Demonstration Project												
	Identification of training materials and resources											
	Assessment of potential training resources for fit and adaptation											
	Identification of 10 .S.M.S. for participation											

to review the quarterly reports, assess steps taken to correct any discrepancies between the strategic plan and actual activities and provide additional recommendations about future CSLA activities. Annual reports containing summative information about activities, progress, and barriers will be prepared and disseminated to all major stakeholders.

(d) Quality of the Project Evaluation (20 points)

CEI will contract with Metis Associates, a national research and evaluation consulting firm that is certified by the What Works Clearinghouse (WWC) on the group design standards, to independently carry out all external evaluation activities for this proposed SEED project. The design and execution of the project evaluation will be directed by Metis Managing Senior Associate, [REDACTED], and Senior Associate, [REDACTED] (résumés provided in Appendix), who will serve as Co-Evaluation Leads. Metis was formed in 1977 to provide human services evaluation, research, and design support to public, philanthropic, and private-sector organizations. Metis has a duly constituted Institutional Review Board (IRB) that is registered with the U.S. Department of Health and Human Services (IRB #00003465) and ensures compliance with Federalwide Assurance (FWA) requirements for the Protection of Human Subjects (#FWA00004755). For more information on Metis, see their letter of support in the attachments and their website at www.metisassociates.com.

(d1) Extent evaluation will meet WWC standards with or without reservations

Guided by the What Works Clearinghouse (WWC) Procedures and Standards Handbook (v 4.1, 2020) and the Teacher Training, Evaluation, and Compensation Evidence Review Protocol (v 4.0, 2019), Metis proposes conducting a comprehensive evaluation that will be rigorous, participatory, systematic, and cumulative, with links between activities, outcomes and contexts that can yield definitive insights into the nature and extent of implementation fidelity and project

impact. Based on the program theory of change (Appendix), the proposed evaluation plan will include formative and summative components and use multiple sources of quantitative and qualitative data and methods of analysis. Listed in the table below are the key research questions that will guide the evaluation.

<i>Implementation Questions</i>	<i>Exploratory Outcome Questions</i>
<ol style="list-style-type: none"> 1. What is the overall fidelity of CSLA implementation based on the actual delivery of key model components (i.e., inputs/activities in the logic model that include coaching, technical assistance, the creation of individualized action plans, access to an ongoing learning community) in each year of implementation? Is there any variability in the fidelity of implementation across the two cohorts? 2. What are the challenges and successful practices of implementation? How can project implementation be improved? 3. To what extent are CSLA participants (including school administrators and other school stakeholders) satisfied with the program supports and perceive them to be useful for improving their school communities? 4. To what extent does treatment dosage and implementation fidelity relate to the educator and student outcomes? 5. To what extent does CSLA serve target schools that include high-need students? 6. In what ways do the demonstration sites provide key formative data regarding best practices and contribute to the replication and sustainability efforts? 7. At the end of project implementation, how are the program materials and findings made available to a broader audience? To what extent is the project sustainable within participating schools? In what ways has the project been prepared for scale-up? 	<ol style="list-style-type: none"> 8. To what extent do participating educators indicate that the assessment and individualized resources from the S-CCATE are useful and that they intend to make changes based on the results? 9. To what extent do participating treatment schools outperform control schools regarding S-CCATE scores, school-day attendance rates, and staff retention rates? 10. To what extent do participating treatment schools demonstrate significantly lower rates of schoolwide disciplinary actions and teacher turnover rates? 11. To what extent do participating school administrators report a) better understanding of the needs of their schools, b) increased commitment to a compassionate school community, and c) increased commitment to diversity, following their participation in the program? 12. To what extent do participating teachers demonstrate improvements in their sense of: a) morale, b) work attitudes, and c) belief in the effectiveness of Compassionate School Culture, following their participation in the program? 13. To what extent do teachers in participating schools demonstrate significant reductions in burnout following their participation in the program? 14. What, if any, differential impact is there based on teacher (content area, years of experience, gender) and student (grade, race/ethnicity, gender, special education status, English learner status) demographics?
<i>Confirmatory Impact Question</i>	
<ol style="list-style-type: none"> 15. What is the impact of CSLA on the school-day attendance, academic achievement, and the discipline of students in participating treatment schools as compared to their counterparts in non-participating study schools? 	

Evaluation Design. A Stepped Wedge, cluster randomized control trial (RCT) study is planned to assess the impact of this project on student outcomes. As described earlier in this proposal, invitations will be sent to school leaders at 3,000 middle schools across the U.S. Based on previous responses, it is anticipated that of these 3,000 schools, leaders from approximately 360 middle schools will respond favorably. All 360 of these schools will receive S-CCATE assessments for their educators. Schools with at least seven respondents to the S-CCATE (estimated to be 280 schools) will be provided with the S-CCATE results, including individual feedback reports, recommendations for training, and implementation. Of these 280, 80 schools will be selected that meet eligibility criteria for the research study. These criteria include: 1) serving high-need students; 2) consenting to participate in the Stepped Wedge RCT study; and 3) completing all online assessments at three time periods (fall, winter, and spring). Prior to the start of implementation, the 80 schools will be randomized, such that 40 are in the treatment group and 40 in the control group. Of the 40 in the treatment group, a second randomization will take place such that 20 receive treatment in Year 2 and 20 in Year 3. The 40 schools in the control group will only receive the results of the S-CCATE, including individual feedback reports and recommendations for training and implementation. The treatment schools (20 in Year 2 and 20 in Year 3) will receive full implementation, including the S-CCATE feedback reports and recommendations, coaching, mentoring, ongoing professional development opportunities, and professional learning communities.

Consistent with an intention-to-treat (ITT) approach, each school (and the students within it) involved in the original random assignment process will always belong to the group to which it is initially assigned and be included in impact analyses whenever possible, regardless of study drop-outs, treatment no-shows, or control cross overs. In this cluster RCT study, joiners (i.e., students

who enter a study school after the results of random assignment are known) will be carefully monitored to determine if they have any potential to introduce bias into the program impact estimates. In addition, attrition occurs when outcome data are not available for subjects in the study samples in RCTs. Sample attrition is minimized in this study by using administrative data and efforts to prevent school dropouts. Following the What Works Clearinghouse (WWC) guidelines, overall and differential attrition rates will be calculated at both the cluster level and individual level to assess whether a given treatment-control contrast would reach the WWC attrition threshold. The corresponding analysis is expected to meet the WWC group design evidence standards without reservations when attrition is low at both the cluster and the individual levels. In case attrition is high, statistical matching approaches such as propensity score matching will be used to establish baseline equivalence on key characteristics (e.g., demographics and prior achievement) between the treatment and the control students, to meet the WWC evidence standards with reservations.

Analysis Plan. To investigate the impact of the CSLA project as implemented, Metis will use appropriate regression analyses including hierarchical linear modeling (HLM) for each year's ITT analyses of primary outcomes, in addition to providing descriptive and/or correlational analyses of quantitative data. While multiple regressions will be used for exploratory analyses of target teacher outcomes, HLM is required in this study for confirmatory impact analyses of student outcomes because the unit of assignment (i.e., schools) differs from the unit of analysis (i.e., students). One major methodological advantage of HLM is that it can deal with multiple dimensions of data structure (students nested within schools), with statistical control of multiple covariates (e.g., students' pre-test and demographic variables, and school-level characteristics) within the same analysis. Statistical significance adjustment procedures (i.e., Benjamini-

Hochberg⁴⁴) will be applied when multiple comparisons are involved for confirmatory contrasts specified in the same outcome domain. In addition, appropriate effect size indices (e.g., Hedges' g and Cox index) will be calculated to measure the practical importance of the findings. All aspects of the analysis plan will be aligned with the WWC guidelines.

Minimum Detectable Effect Sizes (MDESs). Given the parameters of this proposed study, we obtained an estimated MDES of 0.256 standard deviations for key student outcomes in overall impact analyses across two waves. This calculation was based on a sample of 80 schools (including 40 participating and 40 non-participating schools), 1000 students per school, with 80 percent power, an intra-class correlation of 0.20 at the school-level, and pertinent covariates explaining 20 percent of between-school variation, and 30 percent of within-school variation at a significance level of 0.05 for a two-sided test using a two-level model. For a subgroup analysis based on the wave one treatment schools only, we obtained an estimated MDES of 0.296 SDs (20 participating and 60 non-participating schools) by making the same assumptions for the remaining factors. Since the statistical power for a hierarchical cluster design depends much more on the number of clusters (i.e., schools) than the number of students in each cluster/school, the MDESs of subgroup analyses of students would only be slightly larger than 0.256 (based on data from both waves) and 0.296 (based on data from one wave only) -- e.g., the MDES for a subgroup analysis of half of the original student sample size (i.e., 500 students per school) will be 0.257 and 0.297 standard deviations respectively by making the same assumptions for the other factors. In this study, no school-level attrition is expected based on our previous experiences, while student-level attrition is not anticipated to affect MDESs substantially in any way under the current cluster RCT design.

(d2) Extent evaluation provides performance feedback and periodic assessment of progress

The table below provides each of the outcomes for CSLA aligned with each of the project goals and indicates the data sources that will be used to address each of the outcomes.

Goal 1. To provide immediate, comprehensive assessment, and individualized resources to middle schools across the country	
Outcome Objectives	Measures
O1.1. By the end of Year 1, at least 75% of the educators in responding schools will report that the assessment and individualized resources from the S-CCATE are useful and that they intend to make changes to the school functioning based on the results.	Annual Educator Survey
O1.2. By the end of Year 3, at least 85% of schools in which educators reported making changes based on the S-CCATE results will maintain these changes.	Annual Educator Survey
Goal 2. To establish the evidence base for a leadership empowerment model of technology transfer that results in rapid diffusion of trauma-informed, SEL practices into middle schools located in traditionally underserved, ethnically, and racially diverse communities.	
Outcome Objectives	Measures
O2.1 By the end of Year 3, treatment schools will demonstrate significantly higher scores or rates than control schools across the following: <ul style="list-style-type: none"> • Compassionate school climate scores, as measured by the S-CCATE • School-day attendance rates • Staff retention rates 	S-CCATE Survey (3x Annually) School-wide Administrative Data
O2.2 By the end of Year 3, treatment schools will demonstrate significantly lower schoolwide discipline actions, including in-school and out-of-school suspensions, and teacher turnover rates, than control schools.	School-wide Administrative Data
O2.2 In each of Years 2 and 3, at least 90% of participating school administrators will report the following: <ul style="list-style-type: none"> - better understanding of the needs of their schools -increased commitment to a compassionate school community -increased commitment to diversity 	Annual School Administrator Survey
O2.2 In each of Years 2 and 3, teachers in participating schools will demonstrate significant improvements in their sense of morale and work attitudes and belief in the effectiveness of Compassionate School Culture.	Teacher Job Satisfaction Scale (TJJS-9) Annual Educator Survey

O2.2 In each of Years 2 and 3, teachers in participating schools will demonstrate significant reductions in burnout.	Teacher Burnout Scale
O2.2 By the end of Year 3, students in treatment schools will demonstrate significantly higher school day attendance and academic achievement and significantly fewer disciplinary actions than students in control schools.	Student-Level Administrative Data
Goal 3. Broadly disseminate findings and ensure program sustainability.	
Outcome Objectives	Outcome Objectives
O3.1 In each of Years 2-3, the demonstration project will provide formative data that will be used for program improvement across the implementing schools.	Documentation Review
O3.2. By the end of Year 3, wide-scale adoption and systematic use of the S-CCATE for schools, districts, and state Departments of Education	Evidence of Regular Administration

The evaluation is designed to collect ongoing, formative performance data as well as project year-end, summative data. Formative evaluation findings will be used to monitor the project’s progress toward meeting its objectives and intended outcomes, to ensure the relevance of the project activities to participants’ needs and adherence to the proposed design, and to prompt specific recommendations for project improvement, as appropriate. To this end, data collection has been designed to allow for timely, ongoing assessment of progress. For example, online feedback forms will be collected and analyzed following each program activity. Moreover, systems will be put in place to ensure that all data collected will be analyzed and shared with the Project Team as it becomes available. To ensure ongoing sharing and communication, the Metis evaluators will participate in Advisory Council meetings. Further, the evaluators will share findings from both formative and summative evaluation activities and provide specific recommendations with the Project Team through informal (in-person, phone, and email) and

Data Sources and Methods. To address CSLA’s guiding evaluation questions and assess progress on the project’s outcomes, data will be collected through the following sources and methods: (1) Project Documentation, including but not limited to responses to program outreach;

coaching/mentoring materials; professional development and learning community data; demonstration school data, including interest in replication and sustainability efforts; (2) School-wide data, including school-day attendance rates, student disciplinary actions, and staff turnover/retention rates; (3) Individual student level administrative data, including student demographic, school-day attendance, achievement, and behavioral data; (3) S-CCATE assessment data, including scores from three-time annual administration, providing information on leadership and compassionate school community, courage and resiliency, conscious awareness of emotions and stress, understanding of equity, and confidence and positivity; (4) Annual Educator Survey, a locally-developed educator survey designed to address the extent to which educators find the S-CCATE reports useful and have intentions of making changes based on these results, the extent to which they make and maintain these changes, and their belief in the effectiveness of Compassionate School Culture; (5) Annual School Administrator Survey, a locally-developed survey designed to gather information on participating administrators' understanding of the needs of their schools, their commitment to a compassionate school community, and their commitment to diversity; (6) Teacher Job Satisfaction Scale (TJJS-9), a brief, published instrument that assesses the extent to which teachers are enthusiastic, proud, and inspired by their work and find it meaningful and purposeful; (7) Teacher Burnout Scale, a published instrument with 21-Likert scale items designed to assess: a) career satisfaction, b) perceived administrative support, c) coping with job-related stress, and d) attitudes toward students; (8) School Demographic Questionnaire, designed to be completed by school administrators in order to gather information about the age of the school, the composition and credentials of the educators, training and professional development activities, and compassionate-oriented policies and procedures; (9) the Organizational Readiness for Change Scale-Short Form (ORC-D4) to tap into organizational

features associated with innovative practices, across four subscales: a) motivation/needs for change, b) resources, c) staff attributes, and d) organizational climate; (10) Teacher Demographic Questionnaire, designed to assess age, race, ethnicity, gender, education, field of expertise, length of time at school, and classroom size for each responding service provider; and (11) other national and state databases, including NCES, the Behavioral Risk Factor Surveillance System, and the Environmental Scanning and Program Characteristics (ESPC) Database in order to gather existing data on participating treatment and control schools and their stakeholders. Metis will finalize data collection plan details with the project team at CEI and obtain Institutional Review Board approval from Yale and participating schools districts if funding gets approved.

To provide information for project implementation and improvement as well as to better interpret project impacts, every effort will be made to track data on key project inputs and activities (e.g., S-CCATE reporting, mentoring, and coaching, professional learning communities, and other professional development experiences.). Qualitative data collected from any interviews and focus groups will be digitally recorded and transcribed for content analyses. Metis will work closely with project staff to develop an implementation fidelity scale. The scale of implementation fidelity will align with the project logic model, include all key components/constructs of project inputs and their corresponding operational definitions of indicators, and set thresholds for acceptable implementation at the construct level. Data from the implementation fidelity scale will be used in exploratory outcome analyses as appropriate to examine questions related to treatment dosage by using regression-type analyses.

(d3) Extent evaluation uses objective performance measures related to intended outcomes and produces quantitative and qualitative data

Objective Performance Measures. As displayed in the table above, there are four goals identified for the proposed project, each associated with its corresponding objective(s) and multiple performance measures that can evaluate the intended outcomes. Based on the aforementioned data sources and methods, the project evaluation will produce both quantitative and qualitative data that will be used to generate objective performance measures that are linked to each intended project outcome. Guided by the logic model which identifies the key components of the project, we will also systematically measure the implementation fidelity of each key component/ construct over time and link it to the target outcomes and long-term impacts. For each key component, we will identify all corresponding indicators and elements that define if it is implemented as planned, and we will develop operational definitions of indicators and evidence needed to assess the implementation of the corresponding component.

(d4) Extent evaluation provides valid and reliable performance data on Relevant Outcomes

Key Outcomes and Measures. The project logic model identifies student school-day attendance, academic achievement, and behavioral infractions as project outcomes. The following student academic outcomes will be examined: standardized math and ELA achievement tests. Moreover, school-day attendance rates and behavioral infractions, including in-school and out-of-school suspensions, will be examined for students at all levels. To meet the WWC outcome standards, Metis will ensure that each outcome variable used for the project impact evaluation has face validity, adequate reliability, and consistency in measurement in both treatment and comparison groups, without over-aligning with the intervention. According to the WWC, reliability of an outcome measure may be demonstrated by meeting the following minimum standards: internal consistency (e.g., Cronbach's alpha) of .50 or higher; temporal stability and test-retest reliability

of 0.40 or higher; or inter-rater reliability (e.g., percentage agreement, correlation, or kappa) of .50 or higher.

(d5) Extent project will result in information to guide replication and effectiveness

The evaluators and Project Team will meet monthly and by phone weekly to monitor this process of continuous improvement. Metis will present outcome and progress data from the evaluation with the Project Team quarterly. All research data will be shared with key stakeholders to engage them in the process and create a broader engagement in continuous improvement that will support program development and sustainability.

Findings from both formative and summative evaluation activities will be communicated to project staff on a regular and as-needed basis through telephone and email communication and individual meetings with the Project Co-Directors. A member of the evaluation team will attend the annual program meetings and work with the Project Director to prepare the Annual Reports for the USED. Both formative and summative evaluation results will be more formally summarized and presented in annual performance reports and local evaluation reports, which will be completed at the end of each school year and after the end of the project. In these reports, the evaluator will include a presentation of quantifiable, descriptive, and analytic findings, as well as a narrative explanation of the data and interpretation of findings. Each report will explore obstacles encountered and strategies to overcome these challenges, as well as detailed recommendations for future program improvements and expansion.

Furthermore, the evaluators will work closely with the project team to disseminate findings from the project on an ongoing basis. In each project year, the evaluators and project team will

present at national and local evaluation and content area conferences and will collaborate on at least one journal article following the completion of the project.

Source	Description	Frequency
Level: District		
National Center for Education Statistics	District demographics: population, median household income, total households, race/ethnicity, average age of households, language spoken at home, education level and employment, # and breakdown of supportive staff and services, revenue, and expenditures	T3, T6, T9
Level: School		
National Center for Education Statistics	Total number of students, grade levels, # of teachers, student/teacher ratios, enrollment by grade, enrollment by race/ethnicity, enrollment by gender, number students eligible for free or reduced lunch, # directly certified students	T3, T6, T9
Level: Principal		
S-CCATE	Compassionate School Practices assessment	T1, T2, T3, T4, T5, T6, T7, T8, T9
ORC-D4 subscales	Organizational Culture/Climate assessment Motivation/needs for change, resources, staff attributes, and organizational climate	T1, T3, T6, T9
School Demographics	School Demographic Questionnaire	T1, T4, T7
Principal Demographics	Principal Demographic Questionnaire	T1, T4, T7
Participation and Engagement in Learning		T1, T3,eT4, T6, T7,eT9
Assessment of Turnover		T1, T3,eT4, T6, T7,eT9
Level: Teachers		
S-CCATE	Compassionate School Practices assessment	T1, T2, T3, T4, T5, T6, T7, T8, T9
ORC-D4 subscales	Organizational Culture/Climate assessment Motivation/needs for change, resources, staff attributes, and organizational climate	T1, T3, T6, T9
Demographics	Teacher demographic Questionnaire	T1, T4,eT7
Attitudes about PD		
Burnout		
Student Engagement in Learning	Self-reported rating of degree to which students were engaged in learning	T2, T3, T5, T6, T8,eT9

Level: Students		
Achievement	Aggregate Achievement rates at level of grade and school	T1 (previous year) T3, T6, T9
Behavior	# of disciplinary events- aggregated at level of grade and school	T1 (previous year) T3, T6, T9
Attendance	Attendance aggregated- at level of grade and school	T1 (previous year) T3, T6, T9
Level: Program		
Process and Performance Indicators	Achievement of Goals and Objectives according to scope and timeline	Quarterly

T1, T4, T7 (Start of Fall Semester), T2, T5, T8 (Start of Spring Semester); T3, T6, T9 (End of school year)

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