

**Advancing Social and Emotional Learning Integrated with Rigorous Content
through a Whole-School Professional Learning Model**

*A Proposal by New Teacher Center, partnering with NYC Department of Education,
Eastern OR Regional Educator Network, and MN Southwest West Central Service Cooperative*

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Response to Priorities: The New Teacher Center (NTC), New York City Department of Education (NYCDOE), Eastern Oregon Regional Educator Network (EOREN), and Minnesota Southwest West Central Service Cooperative (SWWC) and evaluation partner, SRI International (SRI), respectfully submit this proposal for the Education Innovation and Research (EIR) Mid-Phase program. This proposal responds to **Absolute Priority 1** (Moderate Evidence) as demonstrated in the US Department of Education Evidence Form included in this application package, and **Absolute Priority 3** (Field-Initiated Innovations in social and emotional learning [SEL]). The majority of partner schools in this project will be **rural**. Over the five-year grant period, partner sites will implement a whole-school professional learning model aimed at accelerating instructional practices through job-embedded instructional coaching (IC). This coaching support will be anchored in integrating rigorous academic content with SEL competencies and will be tested with a rigorous randomized control design. This project will support **1,366** K-8 teachers and **64,920** K-8 students (approximately 60% of whom qualify for the federal Free or Reduced Price Lunch Program [FRPL]) in **124** high-needs schools, where over 50% of the total schools to be served are designated rural (see Appendix F: Summary of School Sample). This project will take an exceptional approach to address how systems can prepare students to be informed, thoughtful, and productive individuals and citizens by accelerating academic learning and fostering the development of SEL competencies at all levels, from the student to the school leader.

Section A: Significance

In partnership with NTC, partners will directly address two issues of significant magnitude that are key barriers to underserved students: the U.S. student achievement gap and teacher effectiveness. This project will advance knowledge of the inextricable link between SEL and

academic learning of students, and the practices of effective teachers to accelerate both areas. NTC will leverage its professional learning model that has been proven to increase student learning by creating Optimal Learning Environments (OLE). The OLE defines the characteristics that enable instruction to address the needs of every learner with an ever-present attention to equity and social and emotional growth. The implementation and evaluation of this project will provide the field with strategies on how to deploy resources and what actions will produce the highest return on investment (ROI).

Issue 1: The U.S. student achievement gap, in which high-income students outperform students who are eligible for FRPL, and white students score higher on standardized tests in reading and math than students of color, is directly related to the lack of effective teachers.¹² Students at the lower end of this gap, who have lower high school graduation and college attendance rates, most often attend high-need urban or rural schools, where working conditions are hard, salaries are low, and teacher attrition is highest.³⁴⁵

More than a quarter of U.S. students attend large, overcrowded, public schools in metropolitan areas, where African American and Latino students are often the majority, and over 65% of students fail to reach the “basic” level of achievement on national tests.⁶ Only 5% of White students attend a school in which the majority population is students of color, yet over 53% of students of color attend such a school.⁷ Many new teachers are disproportionately assigned to hard-to-staff schools in these low-income, urban areas,⁸ where schools are more likely to employ teachers on emergency waivers or those who are not certified in the subject area they are assigned to teach⁹¹⁰ and qualified teachers are more likely to leave than in suburban schools.¹¹

Nearly a quarter of U.S. students attend rural schools, where students are also outscored by suburban students in reading and math,¹² and similar to cities, rural students of color are more likely to attend a school with high levels of poverty than are White rural students.¹³ Over 60% of rural counties have high rates of child poverty compared to 47% of urban counties, and rural schools offer less rigorous courses than urban or suburban schools.¹⁴ Rural teachers tend to be less prepared and those who are well-prepared are often unwilling to move to isolated rural communities, where they might have to teach multiple subjects.^{15 16}

Given the gap in achievement, the field needs strategies to disrupt inequities. Decades of research have established that a mediating factor in narrowing the achievement gap is improved SEL competencies, which are linked to increased academic achievement and decreased negative outcomes later in life.¹⁷ An extensive study¹⁸ found that students with stronger SEL skills showed 11 percentile-point gains in academic achievement over those who did not receive SEL skill support. Improving SEL competencies disproportionately benefits children from underserved communities;¹⁹ SEL is the bridge across the achievement gap that exists between high needs students and their peers.²⁰ This project will evaluate the effectiveness of SEL supports to improve student learning in rural and urban environments.

Issue 2: Teacher Effectiveness The most influential school-based factor for student achievement is a student's teacher.²¹ However, an obstacle for schools is that SEL is often a siloed program for educators, versus an intentional practice whereby SEL development is cultivated into the habit of daily, high-quality instruction.²² One solution is to anchor professional learning (PL) in SEL practices,²³ however, for this strategy to be successful it requires a pivot for how schools approach PL. While the U.S. spends \$18B annually on teacher PL,²⁴ few teachers

report that it was useful, often receiving fragmented PL that is not accompanied by ongoing, systematic supports.²⁵ This lack of deeper, effective support—that is grounded in SEL and engages educators at multiple levels—creates an unmet demand for effective PL models. High-quality IC shows an increase in teacher practice and student achievement.^{26 27} NTC’s model incorporates 1:1 support where coaches provide instructionally-focused support and professional learning communities (PLCs) to enable teachers to engage in formal planning and collaboration with their peers, and research shows that both of these elements lead to less attrition.^{28 29} This project will enable partner sites to build teacher PL models that deliver high-quality, job-embedded support, improving teacher practice and students’ SEL competencies and learning.

This project’s goal to improve SEL competencies is of critical significance, now more than ever, given the significant trauma and re-learning that will be necessary as a result of the global health crisis created by COVID-19. NTC’s PL model can validate solutions for the field that integrate SEL and academic content. By improving student SEL skills and learning through increased teacher effectiveness, this project will enable partner sites to narrow the student achievement gap.

Section B: Quality of the Project Design

B1 (Goals, Objectives, and Outcomes): NTC proposes to launch a whole-school PL model in partner sites to achieve the five goals, objectives, and proximal outcomes outlined in Table 1, anchored in NTC’s Theory of Change (see Appendix D2). By accomplishing the project’s goals outlined, the following four **outcomes** will be achieved: 1) Accelerate the skills, mindsets, and instructional practices of teachers, which includes developing skills in creating challenging, engaging, persevering, and caring classrooms; 2) Improve SEL for systemically underserved students, including developing SEL competencies in self-efficacy, self-management, growth

mindset, social awareness, and classroom relationships; 3) Improve academic learning for systemically underserved students, including performance on math and English language arts (ELA) state assessments; and 4) Improve school-culture and conditions, as well as retention of effective teachers.

Table 1: Goals, Objectives, and Proximal Outcomes

Goal 1: Build capacity to lead a high-quality, sustainable whole-school PL strategy Component 1: Building Conditions for Success	
Objectives	<ul style="list-style-type: none"> ● Garner district support through change management consultation to set a shared vision for teaching and learning ● Identify and train a program lead/advocate ● Partner site staff attend NTC National Presenter Institutes and the NPLN
Proximal Outcomes* (Data Source)	<ul style="list-style-type: none"> ● 100% of stakeholder meetings occur (Program Records) ● Program lead identified and dedicated to project (Job Description & Hiring) ● 100% of teams attend Presenter Institute and NPLN (Program Records)
Goal 2: Prepare coaches to provide SEL-anchored instructionally focused support Component 2: Preparing Instructional Leaders	
Objectives	<ul style="list-style-type: none"> ● Help identify and select strong coaches ● Ensure coaches have time and appropriate caseloads to provide support ● Provide comprehensive ongoing PL for coaches, including in-field coaching

<p>Proximal Outcomes* (Data Source)</p>	<ul style="list-style-type: none"> ● Partners develop rigorous coach selection process (Program records) ● 80% of coaches report spending the majority of time coaching and have appropriate caseloads (Formative Assessment System [FAS]) ● 80% of coaches complete training and receive feedback (Program Records)
<p>Goal 3: Provide teachers with exceptional SEL-anchored instructional support</p> <p>Component 3: Supporting Teacher Development</p>	
<p>Objectives</p>	<ul style="list-style-type: none"> ● Deepen teacher ability to develop executive functioning and persistence in students ● Ensure coaching is instructionally-focused and consistent
<p>Proximal Outcomes* (Data Source)</p>	<ul style="list-style-type: none"> ● 80% of students report teachers support their SEL development (student survey) ● 80% of teacher-coach interactions focus on high-leverage strategies and are consistent (FAS)
<p>Goal 4: Support school leaders to sustain instructionally focused teacher support</p> <p>Component 4: Building the Capacity of School Leaders</p>	
<p>Objectives</p>	<ul style="list-style-type: none"> ● Conduct school leader learning sessions on supporting teacher development and school conditions ● Program lead meets annually with school leadership to build alignment ● Coaches share regular progress updates with school leadership

Proximal Outcomes* (Data Source)	<ul style="list-style-type: none"> ● 80% of school leaders attend learning sessions (Program Records) ● 80% of school leaders meet annually with program leads (FAS) ● 80% of schools report strong school conditions (Survey)
<p>Goal 5: Engage stakeholder groups continuous cycle of learning driven by data and communication to inform improvements</p> <p>Component 5: Formative Feedback and Evaluation to Measure Outcomes</p>	
Objectives	<ul style="list-style-type: none"> ● Provide frequent formative data so teachers and coaches understand their work ● Share data monthly with leaders to discuss progress and opportunities ● Convene stakeholders regularly for step back and annual meetings
Proximal Outcomes* (Data Source)	<ul style="list-style-type: none"> ● 100% of coaches and teachers access and review data (FAS) ● 100% of school leaders receive monthly reports of implementation (FAS) ● 100% of stakeholders meetings occur (Program Records)

*Note: Targets are based on NTC’s i3 Validation study reviewed by What Works Clearinghouse (WWC) that meets without reservations.

Additionally, the Logic Model in Section E2 maps how the Theory of Change and activities outlined in Section B3 will achieve the project outcomes.

B2 (Target Population): This project will address the acute needs of each partner site to narrow the student achievement gap and improve teacher effectiveness through deep knowledge building and practice of SEL competencies and skills.

Several of New York City’s Community School Districts (CSD) from the Queens area will participate in this project. CSD 24, as a representative district in Queens, serves a diverse

population, where 62% of students identify as Latino, and 20% as Asian or Native Hawaiian/Other Pacific Islander, with 67% eligible for FRPL. In 2018-19, 33% of Black students and 40% of Latino students were proficient in 3rd grade ELA as compared to 75% of White students. In 3rd grade math only 29% of Black students and 40% of Latino students were proficient compared to 67% of White students. Communities in District 24 have been hardest hit by COVID-19. As a result, the need to support educators and leaders to focus on social and emotional competencies, along with how to scaffold and accelerate student academic learning, is acute.

The EOREN represents rural districts in Oregon, where most have fewer than 1,000 students. Schools are dispersed and have very few job-alike peers. Schools in EOREN range from 30% to 90% students qualifying for the FRPL program. Districts with the most underserved students also lag the state average in achievement; one high-needs district lags the state average by roughly 16 and 17 percentage points in grade 3 reading and math demonstrating a considerable achievement gap.

The SWWC serves 55 school districts in southwest Minnesota and is dedicated to providing unparalleled education and uncompromising support. Schools in SWWC range from 30% to 70% of students qualifying for the FRPL program. Students who qualify for FRPL lag behind the state average in performance by 19 percentage points in math and 17 percentage points in ELA. Approximately 42% of districts in this cooperative have at least 20% of their student population that identifies as diverse.³⁰

The proposed reach in each partner site is outlined below in Table 2. Each partner site has common and unique challenges that will be tackled with this project by providing high-quality training and support tailored to the needs of each geographic location.

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Proposed services within this component include:

- Access and utilize NTC’s FAS: This system provides a dashboard with real-time data that tracks leading indicators, which research finds predictive of student learning, including the intensity and instructional focus of teacher interactions.³⁵ This data access allows teachers, coaches, program leads, schools, and partner site staff to have real-time information to understand implementation fidelity and course corrections as needed. Ongoing access to this key tool is part of NTC’s capacity building to sustain the program after the grant ends.
- Management and collaboration structures: NTC facilitates frequent stakeholder convenings, including monthly forums with coaches, quarterly meetings with program leaders, and semi-annual step backs with central office leaders where formative and summative evaluation data can be shared. NTC’s external evaluation partner, SRI, presents formative and summative evaluation data at annual convenings of all partners and participates in monthly and annual stakeholder engagement

meetings to discuss formative evaluation data with individual sites.

These proposed supports include continuous learning for program improvement allowing for site-specific contextualization.

These five components of NTC's Theory of Change help coaches and teachers establish OLEs that leverage research-based instructional practices and build student SEL competencies. NTC's knowledge of the change management needed to optimize teacher support through a systematic approach to capacity building will foster district-led sustainable programs that will drive improved teacher practice, student SEL development, and academic learning beyond the grant.

B4 (Efficiency): Staff/time efficiency: Districts typically have a variety of coaches, a variety of PL, and some have distinct SEL programs. However, there is often much duplication and inefficiency due to a lack of alignment and coherence, leading to limited impact. In urban districts, the sheer number of teacher development efforts spread across multiple departments, along with district and union politics, and the inability to sustain large-scale implementation and alignment often hinder improvement efforts.³⁶ Furthermore, rural districts face unique challenges; teachers participate in PL at lower rates than other teachers, due to: physical distance from providers; limited resources; and lack of local, school-based staff to support instructional initiatives.^{37,38}

Because the role of the instructional coach and PL models are underutilized, leveraging coaching positions with change management and training to foster a focus on improving SEL competencies and instruction presents an opportunity for partner sites to improve student learning. Staffing rates of instructional coaches have doubled over the past 15 years and more than 90% of students attend schools that employ at least one instructional specialist providing

coaching through one-on-one and PLC settings.³⁹ Many districts have created “coach” roles to support implementation of reforms and curricula,^{40,41} however there are no mechanisms for understanding impact. This project will increase efficiency in time and staffing for partner sites by honing the roles, responsibilities, and utilization of instructional coaches. NTC-trained coaches spend more focused time with teachers to work on high leverage practices grounded in SEL that are empirically associated with improving student learning such as lesson planning, supporting observation and feedback, or analyzing student work (see US Department of Education Evidence Form included in this application package).

Fiscal efficiency: NTC has engaged in a comprehensive cost model review to ensure costs are both reasonable and sustainable for LEA partners. NTC can establish that total program costs and cost per student (estimated at \$255) are reasonable compared to other, less impactful programs. Additionally, in 2019, NTC invested in a robust ROI study,⁴² which concluded that NTC’s support yields a 22% return to the district, equivalent to a district savings of nearly \$1 million over a five-year investment with one hundred teachers per year due to higher teacher retention. These results were found in a district where 90% of students were Non-White and 85% of students were eligible for FRPL.

Sustainability: NTC also addresses efficiency by actively building capacity of partner sites to sustain the program beyond the grant. Over the five-year grant period, NTC will build partners’ capacity, taking a gradual-release approach that includes phases of implementing NTC’s codified key components, which is a part of NTC’s Theory of Change (see Section D3). This approach will enable NTC to further test and prove the effectiveness of its whole-school supports in diverse settings, providing a cost-effective strategy for partner sites across the nation to address the critical issues of the student achievement gap and teacher effectiveness.

Section C: Strategy to Scale

C1 (Barriers): There are four district barriers that hinder partners' ability to successfully implement strong whole-school supports anchored in SEL-based IC: 1) Siloing of SEL skill development from teacher routines; 2) Fragmented or under-resourced coaching; 3) Specific local needs are not identified; and 4) Inflexible delivery models. There are four strategies to address these barriers that are anchored in NTC's Theory of Change (see Section B3): 1) Deeply integrate SEL skill development into teacher practice; 2) Define and focus the role of instructional coaches (*Component 2*); 3) Adapt PL to local contexts (*Components 1-4*); 4) Provide online, flexible delivery options (*Components 2-4*). Below is an outline of how the project will address the barriers in each partner site.

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Cultivating cycles of continuous learning for district partners throughout the project:

Through NTC’s feedback process, teachers, coaches, and the field will have a detailed understanding of how coaches spend their time, what they focus on during their time together,

and the relationship of these interactions with improvements in SEL skill development and learning. This information will unlock the “black box” of what works and why to share with the field.

Disseminating the results of the evaluation to the field through a formal communications plan: This communications plan will include strategies to disseminate grant approaches and findings through multiple channels, including publications, national events, conferences, and social media. The target audience for these communications will include districts, consortia, states, policy makers, and non-profit partners. Specifically, NTC will draw from dissemination strategies that were executed in past federal grant programs (i3 Validation and SEED). The communications plan will include, but is not limited to: 1) NTC National Events such as the annual Symposium and semi-annual National Program Leader Network; and 2) External partnership events. NTC has hosted numerous webinars (EdWeek 2018, Learning Forward 2018, Mathematica 2019) and presented at conferences (AASPA 2018, Council of Great City Schools 2018, Florida Summit Lunch and Learn 2018). Additionally, NTC participated in the Federal Grant Directors’ Meeting workshop in 2018 to share sustainability planning strategies with peer organizations, and would seek similar opportunities in the future.

The proposed body of work will share key learnings with the field. The impact of this proposed work will also have long lasting effects in partner sites as the skills built through this project will persist beyond the five-year grant period.

Section D: Adequacy of Resources and Quality of the Management Plan

D1 (Capacity): Qualified Personnel: The NTC staff dedicated to this project represent NTC’s top talent, with expertise in program implementation and management, IC, school leadership and SEL, as well as impact and financial reporting. NTC has also built in structures described in

Section B3 to build local partner expertise, ensuring program sustainability. NTC is confident that this group will be able to meet the goals, expand across the sites, and produce sustainable teacher development programs that improve practice and student learning. Information about the roles and responsibilities of key staff as well as their qualifications and resumes are provided in Appendix B.

Financial Resources: NTC's annual operating budget for the FY21 fiscal year is \$23M, not including a robust reserve. Our experience operating at this scale and with other federal grants positions us well to efficiently forecast and manage the financial resources needed for this project to succeed. Experience with several federal grants ensures accurate cost estimates for project implementation and deep support for managing grant expenses. This existing knowledge allows us to reduce the time needed to learn grant management and ensures more resources go to our partners to support improving student SEL and academic learning.

Management Capacity: NTC has gone from managing a handful of district partnerships in 1998 to managing partnerships in over 360 districts in 2019 by being well-managed and by delivering high-quality program implementation and support on time and on budget. NTC proposes replicating successful management structures from past federal grants that include multiple layers of oversight and quality assurance. The Management Roles outlined in Appendix B and the detailed Management Plan in Appendix I provide more information about NTC's capacity to manage large scale projects.

D2 (Costs): NTC has engaged in a comprehensive cost model review to ensure costs are reasonable and sustainable for partner sites. NTC's total program costs and cost per student (estimated at \$255) are reasonable compared to other, less impactful programs. Additionally, we have ROI data showing long term value (see Section B4). The project design proposes to

frontload program costs of building infrastructure and training during the first three years, allowing for the transfer of program implementation from NTC to partner sites in years four and five. Partner sites have agreed to sustain essential program costs once grant funding ends, as this cost-effective model will aid in reducing the financial drain of teacher turnover.

D3 (Continued Support): NTC's model is designed to be intensely collaborative and assumes from the outset that the goal is for the partner to implement the work beyond the grant period. This project focuses on change management, resource allocation, and building partner site capacity throughout four phases: Phase 1: Setting the stage by partnering with sites; Phase 2: Creating demonstration sites through early adopters; Phase 3: Scaling implementation to control sites and beyond and Phase 4: Codifying and sharing learnings from each partner site. NTC will gradually release implementation responsibilities to partner sites using methods that will ensure an aligned, partner-owned strategy for supporting highly effective teachers that will influence student learning for years to come. NTC simultaneously builds principal capacity to ensure implementation translates at the school level and supports local initiatives. As instructional coaches continue to be employees of their partner sites, their growing expertise becomes part of an enriched pool of human capital. By having partner sites contribute to these costs, there will not be a human capital cliff at the end of the grant. NTC and its partner sites will develop a MOU and an action plan with specific aims supporting each partner site's intention to implement, expand, and sustain their programs. By grant end, partner site staff will have built the skills for the program to be site-owned.

D4 (Management Plan): As outlined in Section D3, NTC will build partners' capacity, taking a gradual-release approach over the five-year grant period. This approach will enable NTC to further test and prove the effectiveness of its whole-school PL model in diverse settings,

providing a cost-effective strategy for partner sites across the nation. The detailed Management Plan in Appendix I contains the timeline, activities, and measures to achieve the project’s goals and objectives, and identifies the staff responsible for each activity.

SECTION E: QUALITY OF THE PROJECT EVALUATION

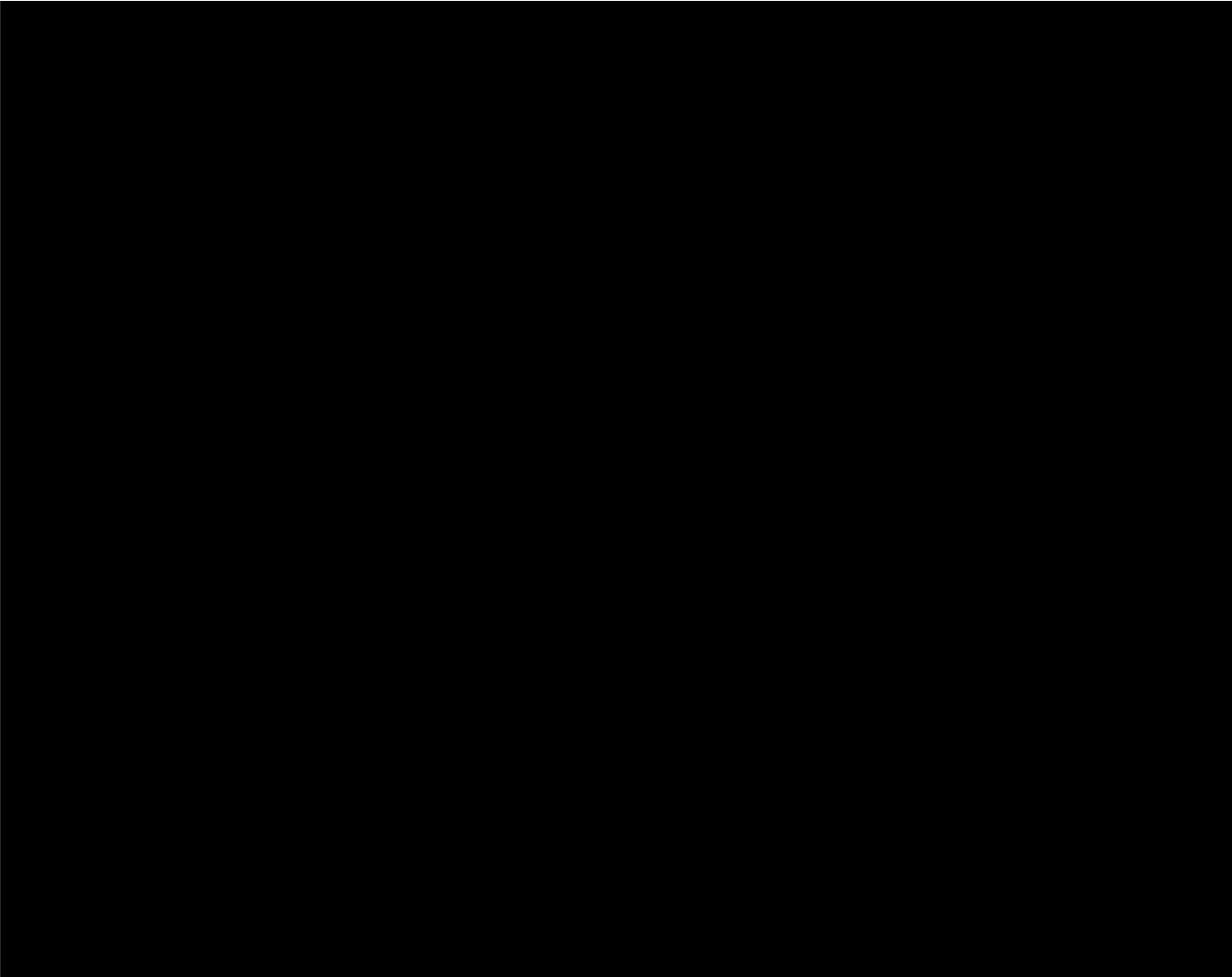
NTC will contract with SRI to conduct an independent evaluation of NTC’s IC model that assesses implementation of the intervention’s key components and measures the impact of NTC coaching on teachers and students. The proposed evaluation features a cluster-randomized control trial (RCT) assigning schools to NTC’s IC program or to status quo coaching practices. Schools assigned to the treatment group will receive NTC coaching in school years 2021–22, 2022–23, and 2023–24. Schools assigned to the status quo will serve as control before sites expand NTC coaching to all schools in 2024–25. SRI will provide feedback on implementation of the coaching model during the RCT years and in the expansion year, and will assess the impact of the intervention in the second and third years of the RCT (2022–23 and 2023–24).

The evaluation will address the following questions: Main impact: Does NTC’s coaching model result in: (1) improved student achievement in math and ELA? (2) improved student SEL competencies (self-efficacy, self-management, growth mindset, social awareness, classroom relationships)? (3) improved teaching practice in the domains of Tripod’s 7Cs Framework of Effective Teaching? (4) improved school climate? (5) Does the impact of NTC coaching differ by student, teacher, or school characteristics? Mediation: (6) Which teacher practice outcomes mediate the relationship between the NTC coaching and student outcomes? Treatment-on-the-treated effects: (7) What is the impact of NTC coaching on teachers who receive high-fidelity coaching? (8) Which components of coaching (contact time, focus) are related to teacher and student outcomes? Implementation: (9) What are the core components of NTC’s IC model? How

does implementation of NTC's IC model differ within and across schools and sites? (10) What is the cost effectiveness of NTC's IC model relative to the status quo condition? (11) What factors support sustainability and replication across schools and sites?

E1 (Evidence): As a multisite blocked cluster-randomized trial, SRI's main impact analysis is designed to meet WWC group design standards without reservations. During the planning period (2020–21), SRI will support NTC in recruiting 124 schools across 3 sites (New York City, rural Oregon, and rural Minnesota). SRI will collect school-level baseline data and will randomize schools to treatment or delayed treatment in summer 2021. School randomization will be blocked on site, grade span (elementary, middle, and high), and poverty level. SRI will estimate the impact of the NTC IC model on teacher and student outcomes after both 2 and 3 years of implementation. All planned teacher and student measures are deemed eligible under the WWC Teacher Excellence Review Protocol, version 4.0. To ensure that the analytic samples do not include joiners, SRI will identify a sample at baseline by collecting rosters of teachers and students prior to randomization and at the beginning of the 2021–22 school year. SRI will collaborate with NTC on recruitment and data collection strategies to minimize overall and differential attrition (e.g., clear communication, financial incentives, and local site research coordinators to support data collection).⁴⁶ In its previous studies of the impact of NTC's IC programs,^{47,48} SRI achieved teacher and student attrition rates within boundaries set by the WWC.

E2 (Evaluation Plan): The proposed evaluation is designed to measure implementation of the project's key components, mediators, and outcomes as depicted in the logic model in Figure 1.



A prerequisite to interpreting findings is establishing whether the key components were implemented with fidelity. SRI has collaborated with NTC to specify meaningful and measurable indicators of its five key program components and thresholds for high, medium, and low implementation fidelity for each (see Exhibit J1.1 in Appendix J). Differences between treatment and control on survey measures will assess the contrast between the two groups' experiences (see Appendix J1). In each year of the RCT, SRI will document NTC's work to replicate its IC program in diverse contexts through a variety of data including surveys, program records, site visits.

SRI will study (a) the resources NTC invests in developing partner sites' capacities and the sites' experiences with these supports, (b) school leader development and school-level supports for high-quality coaching, (c) coaches' changing practice, and (d) teachers' experience of high-quality coaching. For each of these topics, researchers will pay close attention to local contextual factors supporting or inhibiting replication, documenting variation and local adaptations. A cost effectiveness analysis will provide estimates of the cost required to achieve the program's impact, relative to the status quo (see Appendix J1). SRI will conduct site visits to treatment and delayed treatment schools each study year (2021–22, 2022–23, 2023–24) to provide formative feedback. In each year, SRI will sample seven treatment schools with both high- and low-fidelity implementation, based on data and recommendations. SRI will also sample two control schools to examine coaching under the status quo. Within each school, SRI will interview principals, coaches, and a sample of 6-8 teachers of core content areas who received IC. SRI will interview district leaders in each site (e.g., those responsible for coaching, PL, and curriculum and instruction). See Appendix J2 for a description of qualitative research methods.

Formative Reporting to NTC and Partner Sites: SRI will analyze and report implementation fidelity measures for all schools participating in the intervention in each year of the 3-year RCT and in the year following, as the sites implement NTC's coaching model in delayed treatment schools. This fidelity reporting, coupled with the site visits described above, will form the basis of the evaluation's annual formative reporting to NTC and partner sites, supporting mid-course corrections in program design and delivery and informing efforts to codify and replicate the model during the delayed treatment phase and beyond the grant period. In addition to supporting biannual reporting on implementation fidelity to site-level stakeholders

and participating in annual stakeholder engagement meetings, SRI will prepare a formative memo for NTC after each round of site visits. Findings from this qualitative analysis will be used to interpret and explain implementation fidelity measures and to guide replication of the model in the project's final year.

E3 (Performance Data):

Impacts on students: To assess students' achievement, SRI will collect annual student-level test scores on state assessments in math and ELA from 2020-21 to 2022-24 for all students in grades 3-8. To assess students' SEL outcomes, SRI will contract with Tripod Education Partners to administer the student SEL-C survey in fall 2021, spring 2023 and spring 2024. Tripod's SEL-C measures competencies in self-efficacy, self-management, growth mindset, social awareness, classroom relationships, and responsible decision making that are aligned to the CASEL framework. The reliability of these measures ranges from 0.57 to 0.90 (see Appendix J4).

Sample: Under an intent-to-treat design, the analytic sample for the main impact analyses will include all students in tested grades and subjects whose cohort stays in the same study school for 2 or 3 years (see Appendix J3).

Main impact analysis: Student test scores from spring 2021 and SEL measures from fall 2021 will serve as the baseline, and those from spring 2023 and spring 2024 will be the outcomes estimating NTC's impact after 2 and 3 years of implementation. The analysis will posit a two-level hierarchical model with student and school levels, with NTC program impacts estimated at the school level. Additional models will add interaction terms to examine the potential differential impact of NTC's IC program on different students and schools (see Appendix J7).

Power: The minimum detectable effect size (MDES) is 0.11 for math/ELA achievement and 0.18 for SEL outcomes, assuming 130 students per school in 124 schools across sites (with half in treatment, see Appendix J7 for additional assumptions). The estimated MDES is larger for SEL outcomes than achievement outcomes with the same sample size assumptions because SRI conservatively assumes the same variance composition but much lower variance explained than in the achievement analysis.

Exploratory analysis: Under a treatment-on-treated design, SRI will estimate the impact of NTC coaching on students whose teachers received coaching with fidelity to the model (see Appendix J7).

Impacts on teachers: Teacher practice outcomes will be derived from a student survey assessing practices aligned to Tripod's 7Cs Framework of Effective Teaching: personal support (care and confer), curricular support (captivate, clarify, and consolidate); and academic press (challenge and classroom management). The Tripod is recognized as an eligible teacher outcome in WWC's Teacher Excellence review protocol and is found to be predictive of student achievement, engagement and motivation, as well as success skills and mindsets.⁴⁹ The reliability of 7Cs components ranges from 0.62 to 0.83 (see Appendix J5).

Sample: SRI will contract with Tripod to administer the 7Cs online survey in all classrooms in grades 3 to 5 in all elementary schools and all classrooms of all ELA/math teachers middle schools in fall 2021, spring 2023 and spring 2024. In order to survey all students without repeatedly surveying any of them, middle schools will be randomly assigned to include either all ELA or all math teachers in the survey, but not both subject teachers. Local site research coordinators trained by SRI will support schools with survey administration. *Analysis:* SRI will analyze the impact of NTC's IC program on teacher practice after 2 and 3 years of

implementation, using spring 2023 and spring 2024 7Cs survey measures as the outcome and fall 2021 survey measures aggregated at the teacher level as the baseline. SRI will pool data across sites to conduct the impact analysis. Because teacher outcomes are measured at the student level, we will posit a three-level hierarchical model with student, teacher, and school levels and with the treatment effect estimated at the school level (see Appendix J7).

Power: The MDES for the Tripod 7Cs teacher outcomes is 0.14, assuming an average of 50 students per teacher, and an average of 8 teachers in 124 elementary and middle schools (with half in treatment, see Appendix J7 for additional assumptions).

Impact on school climate: A school climate measure developed by Tripod will be added to the student survey and administered on the same schedule as the SEL-C. The measure has 6-7 items, depending on grade level, with reliability of 0.72 to 0.79. The impact will be analyzed with a similar model to that of student SEL outcomes, with an MDES of 0.18 (see Appendix J7).

Mediation analysis: If the study detects a statistically significant impact of NTC's IC program on student outcomes, SRI will estimate whether teacher classroom practices mediate the effect of the NTC coaching on student outcomes. To do so, SRI will adopt the mediation conceptualization and analytic framework of Pituch, Murphy, and Tate,⁵⁰ which will test whether the mediation path from the intervention to each of the teacher outcomes and further to the student outcomes is statistically significant.

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