

**How Are the Children: Increasing Social Emotional/Mental Health in the High School
Environment (HATC)**

EIR: Early Phase Grant Proposal

Summer 2022

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A. Significance

A1. Overview

In partnership with the Connect with Kids (CWK) Network and Empirical Education (Empirical), the Rock Island-Milan School District #41 (RIMSD) is applying for the Early-Phase Education Innovation and Research grant program under **Absolute Priorities 1** (Demonstrates a Rationale) and **4** (Meeting Student Social, Emotional, and Academic Needs) with **Competitive Preference Priority 1** (Promoting Equity in Student Access to Educational Resources and Opportunities). With this funding, we will implement, evaluate, and refine the CWK social emotional learning (SEL) curriculum coupled with project-based learning (PBL) in RIMSD. We will implement, rigorously evaluate, and improve the innovation. The goal is to generate an evidence-based solution to problems of student underachievement and disengagement, particularly among high needs students. In this proposal we use the term “high-needs” to refer to students who are living in poverty, students of color, English learners, students with disabilities, and homeless students. The title of the proposed project is “How Are the Children: Increasing Social Emotional/Mental Health in the High School Environment” or “HATC.”

We propose implementing HATC in 50 classrooms in the first year, and 100 classrooms the following years, at Rock Island High School. RIMSD is an under-resourced district serving significant numbers of minority (32% Black, 12% Latinx) and economically disadvantaged (52.8% eligible for free lunch) students (see Appendix J.4 Table for demographics). Rock Island High School has been plagued by high suspension rates, low reading and math scores, and chronic absenteeism. On top of these suboptimal characteristics, the COVID-19 pandemic grossly affected students’ school experiences. According to school records, students lost 50% of in-person instruction time as a result of the COVID-19 pandemic. Through a rigorous

randomized control trial (RCT), we aim to implement HATC in under-resourced classrooms, evaluate its efficacy, and develop tools to support high-quality dissemination and ongoing program fidelity.

A2. National Significance of the Proposed Project

“And how are the children?” is the traditional greeting of Maasai tribe warriors. The expression suggests that the true strength of a community is determined by the well-being of its children. This is the single most important question to consider each and every day. As issues are debated, priorities are set, and decisions are made, asking first and foremost “How are the children?” will guide us toward a more just and thriving society.

So, how are the children? As it relates to both social emotional learning (AP4) and equity (CPP1), the relationship between children’s social and emotional health and academic success (both short- and long-term) is (1) a top priority for every parent, teacher, and school in the wake of the COVID-19 pandemic; (2) inextricably linked; and (3) well-documented (Taylor, et al., 2017). A growing research base shows that a focus on social and emotional development helps students build the skills and mindsets they use to acquire academic content, enhance their academic performance by developing academic tenacity and resilience, and develop cognitive and developmental skills that allow them to engage in the classroom (Durlak, et al., 2011). A focus on social and emotional development also promotes overall well-being (Reeves, et al., 2014) by promoting happiness, reducing mental health challenges like depression, promoting prosocial behaviors, and helping them become well-adjusted and able to persevere both in academics and in life (Stafford-Brizard, 2016). Social and emotional support is particularly important for children who have experienced trauma or toxic stress, as these experiences can impair the development of cognitive, social, and emotional skills and mindsets, which in turn

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impact the capacity for learning. Estimates say as many as 1 in 5 children experience a mental disorder in a given year and that approximately 79% of children aged 6-17 have an unmet need for mental health services (OECD, 2015). This situation is even more dire in low-income communities, exacerbating inequities. Living in poverty is a significant risk factor for mental health challenges. Poverty is often linked with other traumas and risk factors, such as housing instability and homelessness, food instability, poor nutrition, and lack of adequate health care. These identified risk factors disproportionately affect children of color and their mental health (Merikangas, et al., 2010). Additionally, these inequities have been amplified due to COVID-19 and current racial tensions. In a recent nationally-representative survey of 13-19-year-olds, almost 40% reported a lower ability to concentrate, make decisions, and feel happy (Kataoka et al., 2002). Two-thirds of students from low-income households and of students of color reported feeling “depressed, stressed, or anxious” as the primary obstacle to learning (Alegria, et al., 2010). This constellation of negative effects from societal inequities compounded by the COVID crisis creates an alarming predicament for our schools and teachers.

A3. Program Innovation and Demonstration of New Strategies

HATC will develop and demonstrate a new strategy and associated intervention—HATC curriculum—that builds on two existing evidence-based strategies: SEL and PBL. By braiding these strategies, HATC will increase knowledge of strategies that address two of our most urgent educational problems: 1) the deep inequities in access to, and engagement and success in curricula that increase social competence; and 2) the lack of SEL supports that amplify authentic learning.

B. Quality of the Project Design

B1. Quality of conceptual framework underlying the proposed activities

CWK has been designated an “Effective Producer of Programs” by the U.S. Department of Education and appears on the U.S. Department of Education’s What Works Clearinghouse List (Page, & D’Agostino, 2005).

The Company’s Drug and Alcohol Prevention Program is on the Substance Abuse and Mental Health Agency’s SAMHSA National Registry of Effective Programs and Practices (NREPP) as well as the New York Office of Alcohol and Substance Abuse Services (OASAS) list of Effective programs (CWK, 2012).

Research shows that schools using CWK programs experienced: a decrease in physical and verbal aggressive behaviors among students, a decrease in the likelihood of students using drugs and alcohol. an increase in positive social and emotional behaviors among students. and iImproved communication among students, teachers and parents.

CWK Network uses the art of storytelling, the Mutual Aid methodology (Gitterman, 2004) and See-Feel-Change (Kotter, 2012) strategies to inspire positive behavior and motivate social action. The company uses a research-proven, peer-to-peer production model that allows students and adults to connect through the power of real-life stories and video.

Experts call it “see-feel-change,” an approach that fuels action by sparking emotion and using the power of storytelling and peer-to-peer connections to create powerful, heart-felt associations (Kotter, 2012).

John Kotter, author of *The Heart of Change* and professor at Harvard University, developed some of the strategies CWK incorporates in story-telling and video production techniques. CWK research further validates Kotter’s findings that behavior changes are more likely to occur

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through an emotional rather than data driven process. When students or adults watch a compelling story through video, the experience creates an emotional impact that is far more likely to instigate behavior change than more traditional teaching approaches.

Kotter notes that in organizations he studied, the see-feel-change dynamic is most successful through the use of storytelling in video. “I discovered eons ago the power and the magic of using video to create the kind of emotional connection that enables behavior change,” says Kotter.

Source: Excerpt from Creating Learning Impact: An Interview with John Kotter Chief Learning Officer Solutions for Enterprise Productivity – 4/29/2008

Mutual Aid recognizes the power of one’s peer group as a vehicle for solving common problems (Shulman, 2011). The peer group provides a forum for trying out new behaviors; giving and receiving feedback; providing positive support; and learning to help and support others through the aid of a trusted adult. There is something special in hearing others articulate similar feelings and experiences. Through Mutual Aid, the audience discovers that they are not alone in their thoughts, feelings, and emotions, which is sometimes referred to as the “strength in numbers” phenomenon (Steinberg, 2014).

Through the power of video and technology, students, parents and educators learn at an emotional and intellectual level that provides a greater opportunity for positive behavior change. Research shows that children and adults who emotionally connect with an experience are more likely to make a life-long behavioral change than those who just received information about that experience (Davis, 2020). Video is an emotional medium and an excellent vehicle for allowing students to connect to the experience of another person.

B2. Goals, Objectives, and Outcomes

It is the goal of HATC to create SEL/PBL curriculum that a) result in increased social emotional competence b) decreased office discipline referrals/suspensions and c) increased academic achievement outcomes. In order to meet these goals RIMSD and CWK will partner together to improve upon the current research based curriculum that CWK utilizes in their web-based portals. HATC will address the five CASEL core competencies: Self-awareness, Self-management, Responsible decision-making, Social awareness, and Relationship skills.

In year one, fifty percent of Rock Island High School advisory courses will teach four to five times a week, twenty minute SEL lessons. Teachers will access all content through a web-based portal that will provide the access to gradual release method lesson plans as well as video based modeling/story-telling narratives for students to conceptualize the SEL competencies. With project based learning students will create capstone documentaries to encapsulate their experiences of SEL competencies. In this uniquely immersive one-hour documentary format, we will put cameras into the hands of students in Rock Island School District and go behind the scenes to follow their personal journeys and intimate peer-to-peer interviews. Students become amateur documentarians and learn how to tell their own and each other's stories of hope, help, despair, inspiration, second chances, last chances, and redemption. In the process, they are also growing, sharing, and having intimate and sometimes funny conversations with each other to make meaning of what they learn.

By infusing a youth-voice and project-based learning strategies into daily curricula, students will develop self-awareness, discover the power of their own voice, build relationships and connections with other students, and gain a greater understanding of media literacy and the content development process that shapes our culture and influences our individual lives.

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Simultaneously, a team of educators, media professionals, and youth advocates trained in research-based practices and strategies will work behind the scenes as trusted advisors to help facilitate project-based learning activities and to design and develop corresponding curricula for students, resources for parents, and professional development for teachers.

RIMSD will hire four instructional coaches, beginning in year three, to assist with continued fidelity of implementation, coaching support, and sustainability. The salary is based off of the RIMSD salary schedule for a certified teacher, with a Masters, at our Step 5 level: [REDACTED].

These instructional coaches will need to have had evidence of successful high school experience (i.e. proficient or excellent evaluations), evidence of strong student and colleague relationships, and have experience teaching social emotional learning lessons at the classroom level. Existing staff will be used for this research study as SEL is a top priority of the RIMSD. Since COVID, our students and staff are struggling and need additional assistance with mental health and SEL strategies. We were looking for a curriculum to embed that met the needs of high school students. We will move forward with the current staffing we have to ensure we can sustain this after the grant ends.

In years four and five, RIMSD will invite the San Mateo County Office of Education (SMCOE) to visit and discuss the opportunities of rolling out HATC in SMCOE. We will draw upon a range of dissemination mechanisms and partnership strategies to maximize its impact and provide evidence-based recommendations to practitioners and policymakers about which HATC approaches are effective in what contexts for which students. Project milestones and findings will be shared broadly over the course of the grant period, with the final two years being devoted exclusively to dissemination and sustainability, and scalability activities. During the project period, we will codify the newly developed HATC components—including manuals, videos,

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policy briefs, and hands-on guidance regarding leadership strategies, training, curriculum implementation; so that they can be replicated with fidelity. An implementation guidebook will also be developed in accordance with the HATC model and the validated program parameters from this project. We will share these resources as well as insights gleaned during the implementation process through an online resource center that includes blogs, how-to guides, articles, and other resources. We will immediately apply lessons learned during implementation by directly communicating with principals and teachers in participating schools.

The evaluation plan will provide findings on conditions supporting impact to inform replication and scaling efforts (i.e., based on conditions for successful implementation and understanding of moderators (for whom) and mediators (how) impacts are achieved). These will be detailed in the final evaluation report. Empirical, CWK, and RIMSD will submit findings to peer-reviewed journals (American Journal of Education, Educational Researcher, and Journal of Research on Educational Effectiveness), AERA and SREE research conferences, and ERIC. The Empirical, CWK, and RIMSD team will also disseminate results through the [OESE Resources for Districts webpage](#) and their own websites and social media accounts. Local dissemination of information will occur through the meetings and webinars with stakeholders, school administrators, and staff.

Table 1 presents a full description of goals, objectives, and outcomes.

TABLE 1. PROJECT GOALS, OBJECTIVES, AND OUTCOME MEASURES	
GOAL 1: When HATC SEL Curriculum encompassed with Project Based Learning components are implemented students will demonstrate positive effects with increased social emotional competence.	
GOAL 2: When HATC SEL Curriculum encompassed with Project Based Learning components are implemented students will demonstrate improved behavioral and academic outcomes.	
Objectives	Outcomes (Measures)
1) Rock Island-Milan School District (RIMSD) and Connecting With Kids (CWK) will meet on a regular basis to ensure training completion, fidelity of implementation, and local	1a) RIMSD will meet internally at least bi-weekly to develop and refine the model to meet local needs. 1b) RIMSD and CWK leaders will meet bi-weekly to develop, plan, and refine the implementation with local adaptation.

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<p>adaptation needs throughout the five year grant life.</p>	<p>1c) RIMSD will conduct quarterly internal evaluation activities to ensure that program outcomes align with the district Strategic Plan. 1d) RIMSD will complete quarterly PDSA cycles with multiple stakeholders (including the external evaluator team)</p>
<p>2) RIMSD and CWK will provide training and ongoing support to high school teachers and administrators to implement CWK curriculum with fidelity to improve student social emotional competency and behavior outcomes.</p>	<p>2a) Prior to year 1 implementation, 40-45 teachers and 12-15 administrators from the District and Rock Island High School will receive 14 hours of training that focuses on the CWK curriculum. 2b) By the end of Year 1, 36- 45 teachers participate in quarterly coaching sessions with CWK. 2c)By the end of Year 1, 40-45 teachers will complete 25 lessons on SEL competencies during advisory period, by using the CWK curriculum 4-5 days per week for 20 minutes per day. 2d)By the end of Year 1, 40-45 teachers will complete 5 project-based learning modules that result in video production for each SEL competency. 2e)By the end of Year 2, 85% of RIMSD high school teachers will have received 14 hours of CWK training and participated in quarterly coaching sessions. 2f)Year 2-5: During each year, 85% of RIMSD advisory periods will complete 25 lessons on SEL competencies, using the CWK curriculum 4-5 days per week for 20 minutes per day, and complete 5 project-based learning modules for each SEL competency. 2g)Year 1-5: Daily attendance rates improve by 3% each year, specifically for student groups with historically lower attendance (Black/African American and Hispanic students; male and female). 2h)Year 1-5: Disciplinary office referrals and suspension rates decrease by 3% each year, specifically for student groups with historically disproportionate rates of suspension (Black/African American and Hispanic students; male and female) 2i)There will be demonstrated growth on the DESSA Composite Score from pre to post benchmark.</p>
<p>3) RIMSD will build internal capacity to scale and sustain the SEL curriculum that meets local needs.</p>	<p>3a)Year 3: RIMSD will hire four SEL instructional coaches to support teacher competence and understanding of effective/research based SEL and restorative practice instructional strategies, specifically CWK curriculum, as related to the CASEL Framework and data driven instruction. 3b) RIMSD will develop implementation guide(s) and lead cross-district collaboration with other districts. (San Mateo and NYC)</p>

B3. Appropriately address needs of the target population or other identified needs

By integrating core components of SEL and PBL, HATC focuses on developing personal and interpersonal skills essential to emotional and relational health for both teachers and students. HATC recognizes social emotional skills (e.g., self-awareness, relationship skills) as a conduit by which to promote a positive school climate that supports students' academic and social engagement (Wang et al., 2020). When school staff are well-versed in social emotional skills, students and teachers have the potential to prevent misunderstandings and deescalate conflicts before they reach a level warranting disciplinary action. RIMSD is currently in the top 20% for out of school suspensions for three consecutive years as defined by the Illinois State Board of Education (ISBE).

Teachers' own social emotional competence is also paramount to HATC program fidelity and sustainability because of their role in modeling social emotional skills. Through weekly SEL activities and professional development on best practices in related topics (e.g., trauma, adverse childhood experiences), HATC provides the tools for decreasing disciplinary practices and creating a sustainable model for equity within the school community.

This is an optimal moment for an investment in HATC given the widespread agreement on the importance of strong social and emotional supports in schools and the gap between interest and implementation. A recent CASEL study found that although 83% of principals strongly endorse SEL and 98% believe it would benefit students from all backgrounds, only 35% have a plan for teaching SEL (DePaoli, et al., 2017). HATC provides a much-needed model and concrete practices for high quality implementation. Our target population intentionally includes high-needs students most at risk for mental health issues and suffering from systemic inequities. RIMSD has visions and strategic priorities focused on student well-being and equity, ensuring

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ongoing support for this work beyond the grant period. This proposal defines high-needs students as those qualifying for the federal free or reduced lunch program, students of color, and students who are English learners. Rock Island High School serves large numbers of students representing populations at disproportionate risk for poor academic outcomes, including exclusionary discipline practices due to historically and systematically unfair policies and practices. Approximately 70% of the students supported by this project will qualify as high-needs.

C. Quality of the Project Personnel

C1. Qualifications of key project personnel

Rock Island-Milan School District (RIMSD) in partnership with CWK (see letter of support in Appendix C) will oversee all aspects of the project, including recruiting teachers; hiring instructional coaches (using the job description in Appendix J, we will advertise the position to traditionally underrepresented groups); supervising, training, and coaching school staff; monitoring project fidelity; overseeing the continuous improvement process; and working with the independent evaluation team from Empirical. The evaluation team’s expertise (see resumes in Appendix B) demonstrates a history of collaborative relationships, and experience working with school districts to address social emotional learning and student achievement which will contribute to the project’s success. See paragraph 1 in Section E for Empirical’s experience.

Table 2 outlines the personnel and responsibilities that will occur throughout the timeline of the HATC partnership.

TABLE 2. PERSONNEL AND RESPONSIBILITIES	
LEADERSHIP TEAM	
Assistant Superintendent, Teaching & Learning	Provide overall leadership for the project; meet regularly with project management and evaluation teams; serve as lead liaison for the district
, Director of Student Services	Coordinate data collection, and access to school record data

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██████████, Principal-Rock Island High School	Coordinate all school activities
██████████, CWK Chief Executive Officer	Oversee the program implementation design
██████████, CWK Educator in Chief	Lead the assembly and refinement of the SEL/PBL intervention components; train staff
██████████ CWK Project Lead	Manage project implementation; monitor progress toward objectives; update curriculum, training, and coaching materials; train staff
INDEPENDENT EVALUATION TEAM	
██████████, PI of the independent impact evaluation	Direct the experimental design and analysis and supervise all reporting and contribute to the writing of the report
██████████ VP of research operations	Manage and oversee compliance issues, communication with RIMSD and participating schools, data aggregation processes, reporting, and dissemination activities
██████████ senior research analyst	Communicate and obtain agreements with the district and school; submit IRB materials; manage data collection activities; conduct descriptive analysis; draft reports; and disseminate results
██████████ asset manager	Revise and finalize reports, presentations, and other dissemination materials and deliverables related to the project

D. Quality of the Management Plan

D1. Timeline and Milestones

Ongoing progress will be tracked against our management plan using Asana, a cloud-based project monitoring tool. Mr. ██████████ (CWK Project Lead) will meet bi-weekly with the project team to develop and implement effective strategies related to program implementation, evaluation, and sustainability while Dr. ██████████ (Assistant Superintendent) will provide monthly progress reports to the team. The team will articulate a common vision, define partners’ roles/responsibilities, monitor implementation, respond to challenges, manage financial and other resources, support data collection and analysis, and promote the sustainability of HATC in RIMSD. The project team will meet bi-weekly with school-based stakeholders to address aspects of program implementation (e.g., technical assistance, one-on-one coaching) and the evaluation team to address aspects of program evaluation (e.g., fidelity, monitoring, dissemination).

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Our feedback process follows [REDACTED] improvement science approach ([REDACTED] et al., 2016). To ensure results-based performance, the logic model and drafted objectives will be used to guide planning, implementation, communication, and evaluation. These tools will assist in timely feedback, authentic assessment, and charting progress toward goals, thereby allowing the evaluation team and stakeholders to make informed decisions related to program delivery as the project unfolds. Quantitative and qualitative data will be collected on an ongoing basis (as frequently as quarterly) to provide performance feedback, assess implementation fidelity, determine how to scale up the intervention, and explore how well HATC meets programmatic goals. Evaluators will iteratively upgrade implementation procedures by conducting formative assessments for all sites, adapting practices based on site performance, and sharing formative evaluation data at every phase of the project. These insights will be used to continuously improve HATC models, implementation, and training materials. Furthermore, participating principals and stakeholders will engage in continuous learning through monthly professional development opportunities. In these monthly meetings, team members will discuss best practices, identify challenges, analyze root causes of conflict, propose hypotheses about drivers for positive change, and test these hypotheses through ongoing examination of data. We will then use the team's feedback and data to continually adjust HATC approaches.

Table 3 illustrates HATC's management plan, timelines, and milestones. The team will review and update this plan yearly based on educator development, student progress, and school climate. We anticipate a start date of January 1, 2023, using the first several months to finalize evaluation instruments, create a curriculum portal hub, and begin professional development. HATC will begin in Rock Island High School at the start of the school year 2023-2024.

TABLE 3. MANAGEMENT PLAN, TIMELINE, AND MILESTONES		
Milestone	Timeline	Who
Design HATC SEL/PBL Curriculum	Jan-May 2023	RIMSD, CWK
Write research protocols	Jan-April 2023	Empirical
Recruit teachers to join evaluation, conduct randomization	May 2023	Empirical
Train teachers/staff on HATC SEL Curriculum and PBL- 14 hours	June-July 2023	CWK
Conduct RCT and implementation study in Rock Island High School advisory classrooms	August 2023-June 2024	Empirical
Facilitate bi-weekly meetings with Leadership Team	June 2023- 2025	RIMSD, CWK
Facilitate quarterly coaching and support to teachers for HATC SEL/PBL Curriculum (Once per quarter)	August 2023- June 2024	CWK
Formative evaluation, implementation, and cost studies	August 2024-2027	Empirical
Create implementation guides with staff, plan for scalability.	August 2024-2027	RIMSD, CWK
Disseminate HATC to SMCOE and NYC schools, plan virtual visits and in-person visits	August 2024-2027	RIMSD, CWK

D2. Cost Rationale

HATC’s cost is reasonable relative to its significant contribution to the social emotional well-being, achievement, and health of students.

CWK has a 20+ year history of developing multimedia content to media and education markets. The Company is partnering with Rock Island School District to build the model, scale the impact, and produce corresponding affordable products and services that can scale nationwide. The national documentary series, sold to media outlets through Gravitas Ventures or another national distributor, drives traffic to the HATC portal where educators, community leaders, parents, teachers, and child advocates can license short-form videos, educational resources, PBL tools such as a DIY movie making kit and more through a national digital platform. Costs to develop that platform are highest in year one due to the need to develop foundational content for the platform. Those costs decrease significantly in outer years after initial educational content is produced and students, producers, advocates, and educators move

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into an additive role to refresh and create additional resources. As the film library, corresponding educational resources, and distribution expands, economies of scale improve. This allows students, families, and teachers nationwide to access materials from a central platform.

Subscription pricing to access the digital platform ranges from \$12.99 per month for individual membership to \$139.99 for individual annual membership. Group pricing ranges from \$500 to \$2,000 per school/organization based on a pricing grid that provides volume discounts. For a pricing model that assumes 500 students per school, the cost per student is approximately \$1.00 to \$4.00 per student after development and research costs are completed.

Although we focus on costs in relation to immediate impacts on student and teacher outcomes, prior research suggests that academic and socio-emotional benefits will extend beyond the life of the grant through improved educational and occupational attainment (Durlak et al., 2011), especially considering that strong academic and SEL skills can be a gateway to college or better paying careers (Wang et al., 2020). For example, 2 years of improved academic achievement and social emotional outcomes can mean the difference between a college degree and non-college degree, which translates into almost \$1 million of additional median lifetime earnings per student for a bachelor's degree and \$400,000 for an associate's degree (Carnevale et al., 2011). The project also provides benefits to future cohorts of students through training teachers to be more effective at managing student behaviors, better at establishing positive teacher-student relationships, and well-versed in SEL. Lastly, the project will improve the HATC model's efficiency and productivity through Empirical's independent evaluation: impact study, implementation study, cost study, and feedback cycles. Empirical will use the "ingredients method" (Levin et al., 2017) and CostOut (Hollands et al., 2015) to synthesize costs of various specified program ingredients and calculate total and per-participant costs, as well as the cost

effectiveness ratio. This will involve calculating the annual per-student direct cost and the incremental full resource cost for HATC, compared to the business-as-usual program. Costs associated with CWK curriculum, portal, training, and materials needed for the PBL component will be obtained from CWK. Administrator, teacher and instructional coach FTE values will be obtained from RIMSD. For guidance, we will consult with the assistance offered through the “Cost Effectiveness in Practice” project funded through IES (Teachers College, n.d.).

E. Quality of the Project Evaluation

Empirical Education Inc. (Empirical) will lead an independent evaluation of HATC that includes impact, process, implementation, and cost data to address research questions that prioritize Standards for Excellence in Education Research (SEER). In this proposal, we refer to SEER Standards in the order listed in [IES](#) (i.e., SEER1–9).¹ Empirical has conducted over 50 rigorous impact, formative, and process evaluations, including ED-funded projects: SEED and i3/EIR grants, a multi-year cluster RCT with 66 schools across multiple districts, and an NCEE-funded statewide RCT with randomization of 700 public schools. Qualifications include recent peer-reviewed publications on experimental methods (██████ in press; ██████ et al., 2021; ██████ et al., 2018; ██████ et al., 2016). CVs for Empirical researchers are included in Appendix B.

The evaluation has four main components, including studies of (1) impacts of HATC on confirmatory outcomes using a design that **meets WWC 4.1 Standards Without Reservations** preregistered in [REES](#) (SEER1); (2) **program processes**, with rapid-cycle performance feedback, to inform RIMSD about implementation and factors that facilitate or impede program development, scale-up, and potential replication (SEER9); (3) **Fidelity of Implementation (FOI)** of the program’s key components relative to established thresholds (SEER4&5); and (4) a

¹ SEER1 = Pre-register studies; SEER2 = Make findings, methods, and data open; SEER3 = Address inequities in learner’s opportunities, access to resources, and outcomes; SEER4 = Identify interventions’ components; SEER5 = Document treatment implementation and contrast; SEER6 = Analyze interventions’ costs; SEER7 = Use high-quality outcome measures; SEER8 = Facilitate generalization of study findings; SEER9 = Support scaling of promising interventions.

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cost-analysis and cost effectiveness study (SEER6) using the ingredients method (Levin et al., 2017) (detailed in Section D.2). The timeline for the evaluation is displayed in Table E1.

Table E1. Timeline of key evaluation activities

Timeline	Evaluation-related activities
Jan-July 2023	Planning and recruitment Rosters/schedules set in April 2023 for 2023/24 school year Recruit and randomize teachers/advisory classes in May/June 2023
Summer 2023	Intervention group attends summer training
Aug 2023- June 2024	Study year 1: implementation and impact (RCT) studies, process study with PDSA cycles, and cost study (Outcomes data for impact study obtained by spring 2024)
Summer 2024	Control group attends summer training
Aug 2024- July 2025	Study year 2: study of whole school implementation, process study with PDSA cycles, formative evaluation to support program refinement, and cost study. Final Year 1 report shared with RIMSD
Aug 2025- July 2026	Study year 3: study of whole school implementation, process study with PDSA cycles, formative evaluation to support sustainability/scalability, and cost study. RIMSD identifies teacher leaders, hires/trains SEL coaches, trains all staff, and embeds SEL practices in additional content areas. Final Year 2 report shared with RIMSD
Aug 2026- July 2027	Study year 4: study of whole school implementation, process study with PDSA cycles, formative evaluation to support sustainability/scalability, and cost study. RIMSD develops implementation guides and leads cross-district collaboration with SMCOE to support scaling, replication, and dissemination Final Year 3 report shared with RIMSD
July 2027- Dec 2027	Final analysis of the program implementation, cost & scaling; broader dissemination of findings (through webinars, blogs, professional conferences (AERA, SREE))

E1. Rigorous Impact Evaluation That Meets WWC Standards Without Reservations

The confirmatory and exploratory research questions (in Table E.2) address short-, mid-, and long-term outcomes from the HATC logic model (Appendix G).

Table E.2. Confirmatory and exploratory research questions for HATC

Confirmatory Research Questions
<p>Is there a positive intent-to-treat (ITT) impact of HATC (relative to business-as-usual) on students’:</p> <ol style="list-style-type: none"> 1. social-emotional (SE) competence (composite) (teacher-rated)? (<i>Devereux Student Strengths Assessment-High School Edition; Social-Emotional Composite (DESSA-HSE SEC), $\alpha = .98$</i>) 2. attendance rate (at school)? (<i>District administrative records</i>) 3. suspension rate (reduction in proportion of students with one or more suspensions)? (<i>District administrative records</i>)
Exploratory Research Questions
<p>Additional impacts: Is there a positive impact of HATC on students’:</p> <ol style="list-style-type: none"> 4. individual SE competencies (teacher-rated and student-rated): self-awareness, self-management, social-awareness, relationship skills, relationship skills, personal responsibility, decision making, goal-directed behavior, optimistic thinking? (<i>DESSA-HSE subscales, $\alpha = .85-0.92$</i>) 5. disciplinary office referrals? (<i>District administrative records</i>) 6. student end of year achievement? (<i>NWEA MAP in math and reading in grades 9-11, $\alpha = .80-.92$</i>) <p>Additional impacts (mediators): Is there a positive impact of HATC on teachers’:</p> <ol style="list-style-type: none"> 7. positive relationship with students? (<i>Teacher-Student Relationship Inventory; $\alpha = .84 - .91$</i>) 8. burnout? (emotional exhaustion, depersonalization, reduced personal accomplishment) (<i>Maslach Burnout Inventory for Educators, $\alpha = .71 - .90$</i>) 9. SE competencies? (<i>Social-Emotional Competence Teacher Rating Scale (SECTRS), $\alpha = .69-.88$</i>) <p>Student mediating impacts:</p> <ol style="list-style-type: none"> 10. Is impact on achievement mediated by students’ (a) increased SE competence, (b) increased attendance, (c) reduction in suspension rate? <p>Moderating/differential impacts (SEER3):</p> <ol style="list-style-type: none"> 11. Is there a differential impact of HATC on student and teacher outcomes based on baseline characteristics, including gender, race, socioeconomic status, LEP status, baseline number of suspensions (students) and years of teacher experience and teacher baseline SE competencies (teachers)?

Recruitment, Power Analysis, & Sample Sizes for Confirmatory Analyses. The randomized experiment will examine impacts of HATC on outcomes for 100 RIMSD teachers who lead advisory periods in grade 9-12 students. Each teacher has a single advisory period that meets at the same time (for 25 minutes starting at 1:07pm), with 18 students on average. Therefore, the

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experiment will include approximately 1,800 students. We anticipate attrition of 10 classes/teachers, and 180 students total, for an analytic sample of 1,620 across 90 classes.

Potential participants will be introduced to HATC by the project PI (Assistant Superintendent, Teaching & Learning). We will work with RIMSD to recruit study participants, with consenting, baseline survey, baseline DESSA conducted in May 2023 (class roster and membership is determined in April 2023 for the 2023/24 school year, which will serve as the baseline sample for randomization). It will be communicated to teachers that HATC is being implemented in response to teachers' requests for support in integrating SEL into their school. In addition to compensation for attending summer training and quarterly coaching, we will issue treatment and control teachers stipends for completion of data collection activities. Teachers randomized to BAU will have the same training/coaching opportunities in 2024/25 (and beyond).

We power the study for confirmatory analysis with available samples of teachers/classes and students and show that the resulting MDES/MDI are within plausible range for impacts. We evaluated the MDES/MDI for *confirmatory impacts on proximal student outcomes* (SE competency, attendance, suspension) assuming a class randomized trial, with 90 classes/teachers and 1,620 students remaining post-attrition. Assuming 80% power, Type-1 error rate 5%—with each outcome representing a separate domain and therefore not requiring multiple comparisons adjustment—and for specific values of the ICC, R-squared and other parameters in Appendix J, we calculated the MDES/MDI values as follows: SE competencies (.16 SD); attendance rate (90.4% in HATC; 82% in control [base rate for RIMSD for 2021/22]; MDI = 8.4%); reduction in suspension rate (29.4% in HATC; 41.0% in control [base rate for RIMSD for 2021/22]; MDI = -11.6%). The MDES/MDIs are smaller than ones observed in previous studies of impacts of similar interventions on similar outcomes (Taylor et. al. [2017] for SE competence; Dietsch et al.

[2005] for attendance; and Gage et. al. [2018] for suspension). See Appendix J for full power analysis details.

Randomization. Randomization of classes will be conducted within grade-level strata. In spring 2023, classes will be randomly assigned in matched pairs (using blockTools package in R) to HATC or BAU. Blocks will be informed by teacher attributes (e.g., years of experience, subject matter expertise) and class averages of student characteristics (e.g., past suspension rates). The RCT is designed to meet WWC 4.1 standards without reservations.

Measures. We will assess impacts on outcomes using high-quality measures (SEER7) listed in Table D2 (and described fully in Appendix J). We will conduct confirmatory analyses on the three outcome measures: **(A) SE competency composite (B) attendance (C) suspension**. In addition, exploratory impacts will be assessed on student outcomes, including SE competency subscales, disciplinary office referrals, and student achievement, as well as teacher outcomes, including positive relationships with students, teacher burnout, and SE competencies.

Impact Analysis. ITT estimates of impacts on student and teacher outcomes will be obtained using hierarchical linear models (HLM) (Raudenbush & Bryk, 2002; Singer, 1998) as applied to cluster randomized trials (Bloom et al., 1999, 2005). The distribution of each scale (e.g., normal or ordinal) will be determined in order to select the most appropriate model. We will analyze impacts simultaneously across grade levels, with continuous outcomes, z-transformed within grade where necessary. The benchmark impact model will include random effects to reflect randomized blocks, class-level random effects to account for clustering of students in classes, a dummy variable for treatment status, and class/teacher- and student-level covariates. Covariates will be at the teacher/class level (e.g., baseline survey responses, class-average student outcomes from the prior year), and student level (e.g., demographics and behavioral outcomes from the

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year prior). We will explore several approaches to imputing missing data consistent with WWC requirement (e.g., Multiple Imputation and dummy variable method [Puma et al., 2009], with listwise deletion of cases missing outcomes or pre- intervention measures of the outcome measure, where applicable). For analysis of impacts on teacher outcomes, the impact model will be like the one used for student outcomes, except with a two level model. See Appendix J for HLM specifications to assess impacts on students and teachers. For the confirmatory impact analyses addressing the primary research questions, we will follow WWC topic-area review protocols to report all statistics necessary for WWC review, including obtaining sample sizes at each stage in executing the study design, determining baseline equivalence on demographics and pretests for analytic samples, and standardized mean difference effect sizes. Analyses are detailed in Appendix J.

For exploratory analyses, we will assess differential impacts on confirmatory outcomes for important student moderators, including gender, race, socioeconomic status, LEP status, and baseline number of suspensions. These student subgroups are of interest to RIMSD based on group differences observed historically, and the priority to close access and performance gaps (SEER3). Analysis will be performed by adding the necessary interaction term into the main impact model. Questions of mediation of impact on student achievement through preliminary impacts on SE competency, attendance, and suspension rates will be conducted using a regression framework (e.g., Krull and MacKinnon, 2001,1999) and principal stratification approaches (Frangakis & Rubin, 2002; Jo et al., 2011; Page, 2012).

Researchers will conduct a series of sensitivity analyses to test the robustness of benchmark impact estimates for primary research questions. These analyses will include conducting an OLS

analysis with all outcomes and covariates aggregated to the class level, using Full and Restricted Maximum Likelihood estimation, and using alternative software (*R*, *HLM*).

E2. Evaluation Performance Feedback and Quarterly Assessment of Progress

A chief goal of the evaluation is to provide *frequent performance feedback and assessment of progress toward intended outcomes* that will allow ongoing adaptation and improvement of the HATC model and its local implementation. During the planning period (Jan-July 2023), RCT (2023-24), and whole-school roll out (2024-2027), we will work with the project team to critically and independently advise on RIMSD and CWK’s refinement of the logic model, iteration of fidelity thresholds, and establishing which program components are being implemented successfully or need refinement (see *Fidelity of Implementation* section below).

The process will follow “Plan-Do-Study-Act” (PDSA) cycles from improvement science (Bryk et al., 2015; Lemire et al., 2017). Working together in quarterly PDSA cycles across the 5-year project, Empirical, RIMSD, and CWK staff will identify specific questions that are critical to the continuous improvement of the program (“Plan”). The cycles provide an opportunity to evaluate the successes and barriers to the HATC implementation. Quarterly teacher surveys and annual interviews of select teachers and administrators will incorporate content to inform each specific PDSA cycle. This “Study” period in each quarter supports improvements of specific program components in the subsequent quarter’s implementation (“Act”). For example, RIMSD and CWK staff are particularly interested in implementing the multi-media PBL component of the program after each unit. As RIMSD implements these elements, Empirical will survey participants about logistical issues related to video production, and the impact it has on students. All three teams will review the data together and discuss ways to amplify the identified supports in the subsequent quarters. The long-term goal is to gradually

refine the program logic model (in Appendix G) to support a viable and scalable process for whole-school implementation, as well as a process that is well suited to an upcoming mid-phase validation effort. (See Section B.2. about plans to scale.) Additionally, Empirical will regularly provide RIMSD and CWK staff with results from the implementation and impact studies to inform the dissemination and scalability plan. Cost ingredients and impact information will be collected from both the treatment and control groups and will contribute to CWK's cost-effectiveness analysis.

E3. Implementation Evaluation and Fidelity Thresholds

Fidelity of Implementation (FOI). The implementation study will report on FOI using S(pecific) M(easurable) A(ttainable) R(ealistic) T(imely) goals/thresholds for monitoring **objective performance measures**, and for integrating feedback into the HATC implementation. We will assess adherence to, and ongoing adaptation of, the program logic model (Appendix G) including key components, outputs related to inputs, and attainment of fidelity thresholds (SEER 4,5). Key components and fidelity thresholds are as follows.

- **RIMSD-CWK partnership:** (1) RIMSD meets internally at least bi-weekly to develop and refine the model to meet local needs; (2) RIMSD and CWK leaders meet biweekly to develop, plan, and refine implementation with local adaptation; (3) RIMSD conducts quarterly internal evaluation activities to ensure that program outcomes align with strategic plan; (4) RIMSD completes quarterly PDSA cycles with external evaluator
- **Professional learning and ongoing support:** (1) CWK staff facilitates 14 hours of summer training; (2) CWK staff provides quarterly individual coaching support; (3) 90% of HATC teachers attend 14 hours of summer training; (4) 80% of HATC teachers participate in quarterly coaching sessions

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- **CWK curriculum:** 90% of HATC teachers implement (1) all 25 lessons (across 5 units) during advisory period; (2) at least 4 days per week
- **CWK problem-based learning activities:** 90% of HATC classrooms complete 5 PBL modules (one for each SEL competency unit)

Findings will be shared on a quarterly basis for all five years with RIMSD to decide if key program components and fidelity thresholds are met, should be adjusted, or discontinued.

Variation in implementation. To understand barriers and supports in HATC implementation (SEER5), during the RCT (2023/24), Empirical will survey study teachers four times (pre, twice during, post) regarding access and ease of use of the HATC curriculum/portal, group discussion facilitation practices, and integration of the PBL activities. We will also interview a purposively selected sample of 20 teachers (5 per grade) to expand on themes in survey responses and to identify barriers and supports to implementation. Quarterly surveys (all teachers) and annual interviews with a purposive sample will continue during the whole-school implementation roll-out (2024/25–2026/27), with a specific focus on replication and scalability of the developed model. Implementation findings will be relayed quarterly to RIMSD and CWK to support the program model during the grant and inform a replicable model, including specification of a refined logic model for the program “as achieved” compared to as initially posited.

Treatment-control contrast. During the RCT, data from both conditions about SEL competency topic coverage, levels of PBL, and other activities completed during the advisory period (e.g., levels of support for academic subjects) will be obtained through the quarterly teacher surveys to evaluate the planned and realized treatment–control contrasts (Cordray & Pion, 1993; Weiss et al., 2014) and Achieved Relative Strength of the intervention (Hulleman &

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Cordray, 2009). Surveys will also cover key mediators of impact, including perceived levels of burnout, teacher-student relationships, and teachers' SEL competencies (see Appendix J).

Formative evaluation for the potential for sustainability and scale up. To support whole-school saturation, sustainability, and scaling (SEER9) in terms of depth and spread, Empirical will conduct a formative evaluation across the five-year project, using Coburn's (2003) conceptual model of scale (depth, sustainability, spread, and shift in reform ownership). Surveys and interviews with key participants (including program developers, teachers, and school and district administrators) to establish conditions that support whole-school implementation and integrating SEL competencies into other content areas. To support replication and broader scaling beyond the study sample (SEER9), Empirical will use surveys and interviews to identify obstacles in reaching implementation targets (SEER5) and to support dissemination to other districts. The goal is to enable widespread use of successful models.

Bibliography of Proposal References

Alegria, M., Vallas, M., & Pumariega, A. (2010). Racial and ethnic disparities in pediatric mental health. *Child and Adolescent Psychiatric Clinics of North America*, 19 (4), 759–774.
10.1016/j.chc.2010.07.001

Almulla, M. A. (2020). The Effectiveness of the Project-Based Learning (PBL) Approach as a Way to Engage Students in Learning. SAGE Open.
<https://doi.org/10.1177/2158244020938702>

Aperture Education. (2020). *DESSA-High School Edition Student Self-Report (SSR) Psychometric Study Summary*.

Aperture Education. (n.d.). *DESSA-High School Edition, Teacher Report Form Standardization and Psychometrics Summary*.

Aperture Education. (2022). *How to Select the Best SEL Assessment for Your School or District*.
<https://apertureed.com/sel-assessments-vs-sel-surveys-why-research-matters/>

Bloom, H. S. (2005). Randomizing groups to evaluate place-based programs. In H. S. Bloom (Ed.), *Learning More from Social Experiments*. New York: Russell Sage Foundation.

Bloom, H. S., Bos, J. M., & Lee, S. (1999) Using cluster random assignment to measure program impacts. *Evaluation Review*, 23(4), 445-469.

Bloom, H. S., Richburg-Hayes, L., & Black, A. R. (2007). Using covariates to improve precision for studies that randomize schools to evaluate educational interventions. *Educational Evaluation and Policy Analysis*, 29(1), 30–59.

Coburn, C. E. (2003). Rethinking scale: Moving beyond the numbers to deep and lasting change. *Educational Researcher*, 32(6), 3-12.

<https://journals.sagepub.com/doi/10.3102/0013189X032006003>

Connect With Kids Network, Inc. (2012, February 1). Comprehensive Report on Archdiocese Drug Abuse Prevention Program (ADAPP) Refuse, Remove, Reasons High School Education Program.

<https://connectwithkids.com/files/2018/02/New-York-Research-Report.pdf>

- Cordray, D. S., & Pion, G. M. (1993). Psychosocial rehabilitation assessment: A broader perspective. In R. Glueckauf, G. Bond, L. Sechrest, & B. McDonel (Eds.), *Improving*
- DePaoli, J., Atwell, M., and Bridgeland, J. (2017). Ready to Lead: A National Principal Survey on How Social and Emotional Learning Can Prepare Children and Transform Schools. CASEL. http://www.casel.org/wp-content/uploads/2017/11/ReadyToLead_FINAL.pdf
- Davis, L. (2020). Don't Hide the Hurt: Using Storytelling for Trauma-Informed Teaching. In Cases on emotionally responsive teaching and mentoring (pp. 13-26). IGI Global.
- Dietsch, B., Bayha, J. L., & Zheng, H. (2005, April). *Short-term Effects of a Character Education Program Among Fourth Grade Students*. Paper presented at the American Educational Research Association annual meeting, Montreal, Quebec, Canada.
- Durlak, J.A., Weissberg, R.P., Dymnicki, A.B., Taylor, R.D. & Schellinger, K.B. (2011). The impact of enhancing students' social and emotional learning: A meta-analysis of school-based universal interventions. *Child Development*, 82(1), 405–432. Retrieved from <https://srd.onlinelibrary.wiley.com/journal/14678624>
- Frangakis, C. E. & Rubin, D. B. (2002, March). Principal stratification in causal inference. *Biometrics*, 58(1), 21-29.
- Gage, N. A., Ahhyun Lee, A., Grasley-Boy, N., & George, H. P. (2018). The Impact of School-Wide Positive Behavior Interventions and Supports on School Suspensions: A Statewide Quasi-Experimental Analysis. *Journal of Positive Behavior Interventions* 20(4), 217-226. <http://dx.doi.org/10.1177/1098300718768204>
- Gitterman, A. L. E. X. (2004). The mutual aid model. *Handbook of social work with groups*, 93-110.
- Hamilton, L., & Gross, B. (2021). How Has the Pandemic Affected Students' Social Emotional Well-Being? A Review of the Evidence to Date. Center on Reinventing Public Education, WA. Retrieved July 12, 2022 from https://www.crpe.org/sites/default/files/sel_report_2021_final_8_10.pdf
- Hollands, F. M., Hanisch-Cerda, B., Levin, H. M., Belfield, C. R., Menon, A., Shand, R., Pan, Y., Bakir, I., & Cheng, H. (2015). *CostOut - the CBCSE Cost Tool Kit*. New York: Center for Benefit-Cost Studies of Education, Teachers College, Columbia University. www.cbsecosttoolkit.org

Hulleman, C. S., & Cordray, D. S. (2009). Moving from the lab to the field: The role of fidelity and achieved relative intervention strength. *Journal of Research on Educational Effectiveness*, 2(1), 88-110.

Imai, K., Keele, L., Tingley, D., & Yamamoto, T. (2010). Causal Mediation Analysis Using R. *Advances in Social Science Research Using R*, ed. H. D. Vinod, New York: Springer (Lecture Notes in Statistics), 129-154.

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Jo, B., Stuart, E. A., MacKinnon, D. P., & Vinokur, A. D. (2011). The use of propensity scores in mediation analysis. *Multivariate Behavioral Research*, 46, 425–452.

Kataoka, S.H., Zhang, L., & Wells, K.B. (2002). Unmet need for mental health care among U.S. children: Variation by ethnicity and insurance status. *The American Journal of Psychiatry*, 159(9), 1548–1555. <https://doi.org/10.1176/appi.ajp.159.9.1548>

Kotter, J. P., & Cohen, D. S. (2012). *The heart of change: Real-life stories of how people change their organizations*. Harvard Business Press.

Krull, J. L., & MacKinnon, D. P. (2001). Multilevel modeling of individual and group level mediated effects. *Multivariate Behavioral Research*, 36, 249–277.

Krull, J. L. & MacKinnon, D. P. (1999). Multilevel mediation modeling in group-based intervention studies. *Evaluation Review*, 23, 418-444.

Lemire, S, Christie, C. A., & Inkelas, M. (2017). The methods and tools of improvement science. In C. A. Christie, M. Inkelas & S. Lemire (Eds.), *Improvement Science in Evaluation: Methods and Uses. New Directions for Evaluation*, 153, 23 – 33.

- Levin, H. M., McEwan, P. J., Belfield, C., Bowden, A. B., & Shand, R. (2017). *Economic Evaluation in Education: Cost-Effectiveness and Benefit-Cost Analysis, Third Edition*. Washington, D.C.: SAGE Publications, Inc.
<https://us.sagepub.com/en-us/nam/economic-evaluation-in-education/book245161#contents>
- Maslach, C., Jackson, S. E., & Leiter, M. P. (2018). *Maslach Burnout Inventory Manual: Fourth Edition*. Mind Garden, Inc.
- Merikangas, K.R., He, J.P., Brody D., Fisher, P.W., Bourdon K., & Koretz, D.S. (2010). Prevalence and treatment of mental disorders among U.S. children in the 2001-2004 NHANES. *Pediatrics*, 125(1), 75–81. <https://doi.org/10.1542/peds.2008-2598>
- Northwest Evaluation Association (NWEA). (2019). *MAP® Growth™ Technical Report*.
https://www.nwea.org/content/uploads/2021/11/MAP-Growth-Technical-Report-2019_NWEA.pdf
- OECD (2015). *Skills for Social Progress: The Power of Social and Emotional Skills*, OECD Skills Studies, OECD Publishing, Paris, <https://doi.org/10.1787/9789264226159-en>
- Page, B. & D'Agostino, A. (2005). *Connect with Kids: 2004–2005 Study Results for Kansas and Missouri*. Available from: Compass Consulting Group, LLC. 5726 Fayetteville Road, Suite 203, Durham, NC 27713.
- Page, L.C. (2012). Principal stratification as a framework for investigating mediational processes in experimental settings. *Journal of Research on Educational Effectiveness*, 5(3), 215-244, DOI: 10.1080/19345747.2012.688410
- Puma, M. J., Olsen, R. B., Bell, S. H., & Price, C. (2009). *What to Do When Data Are Missing in Group Randomized Controlled Trials* (NCEE 2009-0049). Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education.
- Raudenbush, S. W., & Bryk, A. S. (2002). *Hierarchical linear models* (2nd ed.). Thousand Oaks, CA: Sage.
- Reeves, R.V., Venator, J., & Howard, K. (2014). *The character factor: Measures and impact of drive and prudence*. Brookings. Retrieved August 15, 2021, from <https://www.brookings.edu/research/the-character-factor-measures-and-impact-of-drive-and-prudence/>

- Schochet, P. Z. (2013). Statistical power for school-based RCTs with binary outcomes. *Journal of Research on Educational Effectiveness*, 6(3), 263-294, DOI: 10.1080/19345747.2012.725803
- Schochet, P. Z. (2008). *Technical methods report: Guidelines for multiple testing in impact evaluations* (NCEE 2008-4018). Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education.
- Seligman, M.E.P., & Csikszentmihalyi, M. (2000). Positive psychology: An introduction. *American Psychologist*, 55(1), 5–14. <http://doi.org/10.1037//0003-066X.55.1.5>
- Singer, J. D. (1998). Using SAS PROC MIXED to fit multilevel models, hierarchical models, and individual growth models. *Journal of Educational and Behavioral Statistics*, 23(4), 323-355.
- Shulman, L. (2011). *The Skills of Helping Individuals, Families, Groups, and Communities* (7th ed.). Belmont, CA: Brooks/Cole.
- Spybrook, J., Raudenbush, S. W., Congdon, R., & Martinez, A. (2011). Optimal design for longitudinal and multilevel research: Documentation for the “Optimal Design” software (through version 2.0). Version 2.0, available at http://www.wtgrantfoundation.org/resources/overview/research_tools
- Stafford-Brizard, K.B. (2016). Building blocks for learning: A comprehensive framework for student development. Turnaround for Children. Retrieved July 8, 2022 from <https://turnaroundusa.org/wp-content/uploads/2016/03/Turnaround-for-Children-BuildingBlocks-for-Learningx-2.pdf>
- Stagman, S., & Cooper, J.L. (2010). *Children’s Mental Health: What Every Policymaker Should Know*. (Brief). New York: The National Center for Children in Poverty (N.C.C.P.). http://www.nccp.org/publications/pdf/text_929.pdf
- Steinberg, D. M. (2014). The Nine Dynamics of Mutual Aid and Their Implications for Practice. In *A Mutual-Aid Model for Social Work with Groups* (pp. 39-53). Routledge.
- Suldo, S. M., McMahan, M. M., Chappel, A. M., & Bateman, L. P. (2013). Evaluation of the teacher-student relationship inventory in American high school students. *Journal of Psychoeducational Assessment* 32(1), 3-14. https://www.researchgate.net/publication/270689950_Evaluation_of_the_Teacher-Student_Relationship_Inventory_in_American_High_School_Students

- Taylor, R. D., Oberle, E., Durlak, J. A., & Weissberg, R. P. (2017). Promoting Positive Youth Development Through School-Based Social and Emotional Learning Interventions: A Meta-Analysis of Follow-Up Effects. *Child Development* 88(4), 1156-1171.
<https://doi.org/10.1111/cdev.12864>
- Teachers College. (n.d.). *Cost Analysis in Practice (CAP) Project*. Teachers College, Columbia University. <https://capproject.org/>
- Tofighi, D., & MacKinnon, D. P. (2011). RMediation: An R package for mediation analysis confidence intervals. *Behavior Research Methods*, 43, 692–700.
doi:10.3758/s13428-011-0076-x
- Tom, K. M. (2012). *Measurement of Teachers' Social-Emotional Competence: Development of the Social-Emotional Competence Teacher Rating Scale* (Publication No. 12351) [Doctoral dissertation, University of Oregon]. Scholars' Bank.
<https://scholarsbank.uoregon.edu/xmlui/handle/1794/12351>
- Weiss, M. J., Bloom, H. S., & Brock, T. (2014). A conceptual framework for studying the sources of variation in program effects. *Journal of Policy Analysis and Management*, 33, 778 - 808.
- What Works Clearinghouse (WWC). (2006). *Lessons in Character*. WWC Intervention Character Education Report, Institute of Education Sciences, U.S. Department of Education.
https://ies.ed.gov/ncee/wwc/Docs/InterventionReports/WWC_Lessons_in_Character_090806.pdf
- YouthTruth. (2020, July). Students weigh in: Learning and well-being during COVID 19. YouthTruth Student Survey. <https://youthtruthsurvey.org/student-weigh-in/>