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Meeting Student Social-Emotional and Academic Needs Through
Technology-Supported Best-Practice in Instruction

(1) The extent to which the methods of evaluation will, if well implemented, produce evidence about the project's effectiveness that would meet the What Works Clearinghouse standards with or without reservations as described in the What Works Clearinghouse Handbook (as defined in this notice). (20 points) (2) The extent to which the methods of evaluation will provide performance feedback and permit periodic assessment of progress toward achieving intended outcomes. (5 points) (3) The extent to which the evaluation plan clearly articulates the key project components, mediators, and outcomes, as well as a measurable threshold for acceptable implementation. (5 points)	18-25
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A. SIGNIFICANCE

A1. The Problem: Disruptions to Learning and Mental Health.

The school closures and related disruptions during the COVID-19 pandemic have had serious consequences for America's students. Estimates are that *students are losing between 0.3 and 0.9 years of education* during the pandemic (Donnelly & Patrinos, 2021), and *low-income and underrepresented or minoritized students are particularly vulnerable*, with research finding a widening achievement gap across economic and social classes (Dorn et al., 2020). Notably, these academic disparities as a function of race/ethnicity or socio-economic status (SES) showed a pattern of persistence in America's schools even before the pandemic (Levy et al, 2016).

In addition, mental health problems (i.e., anxiety, depressive symptoms) have also been exacerbated by the pandemic. A recent review found that social isolation resulting from the pandemic was linked to *higher levels of stress, fear, loneliness, anxiety, and depressive symptoms* among adolescents (Loades et al. 2020), and experiencing these problems in adolescence foreshadows significant risk for psychopathology in adulthood (Aronen et al., 1999; Fergusson et al., 2005; Johnson et al., 2018). Research finds both sex differences (i.e., girls experience higher rates of symptoms as compared to boys; Cash & Bridge, 2009) and *racial/ethnic disparities*; specifically, a recent study with a national dataset found that Black and Latinx adolescents experienced significantly higher rates of depressive symptoms relative to Whites (Hargove et al., 2020). These racial/ethnic disparities have also been made worse by the pandemic (Fitzpatrick et al., 2020; Fortuna et al., 2020). Finally, the pandemic has also impacted the mental health of educators, with research finding reduced teacher self-efficacy and elevated stress and burnout (Pressley, 2021; Pressley & Ha, 2021; Vargas Rubilar & Oros, 2021).

Our project proposes to address these academic and mental health disruptions and disparities by developing a social-emotional learning (SEL) curriculum that, unlike existing programs, is *fully integrated with best practice in instruction* (i.e., cooperative learning, see A3). This integrated solution will target the *key peer-based risk and protective factors* (see A1.1) that influence academic and mental health outcomes, particularly among low SES and/or underrepresented or minoritized youth. Given the emergence of significant mental health problems in mid-to-late adolescence, that developmental period will be the focus of our project.

A1.1 Risk/Protective Factors for Academic Difficulties. The need for belonging and social acceptance among peers becomes paramount in adolescence as the brain becomes more socially oriented (Steinberg & Morris, 2001). Thus, negative social experiences such as *social isolation or rejection* can interfere with academic performance, including academic engagement and achievement (Kaplan et al., 2005; Raufelder et al., 2014). In contrast, *positive peer relations* can promote academic engagement and achievement (Hershberger & Jones, 2018; Roseth et al., 2008; Wentzel, 2005) and reduce the likelihood of grade retention (Lubbers et al., 2006).

Relatedly, there is growing evidence suggesting that race-based social stress, caused by racial discrimination, strongly impacts minoritized students and contributes to the race-based achievement gap (Rothstein, 2015). Prejudicial attitudes and beliefs contribute to social exclusion and rejection (i.e., *discrimination*), which can harm academic curiosity, motivation, persistence, engagement, and perceived efficacy (Huynh & Fuligni, 2010; Neblett Jr. et al., 2006; Smalls et al., 2007; Ying & Han, 2007). Indeed, research finds that chronic psychosocial stress exposure, such as that related to discrimination and related forms of social rejection, serves as a major contributor to chronically low levels of graduation among minoritized students in U.S. public schools (Brondolo et al., 2009; Mays et al., 2007; McFarland et al., 2018).

A1.2 Risk/Protective Factors for Mental Health Difficulties. The stress caused by negative social experiences can, in addition to academic difficulties, create increased risk for anxiety, depression, and low self-esteem (Greenberger et al., 2000; Hankin et al., 2015; Rudolph, 2002; Wenz-Gross et al., 1997). Key risk factors for mental health difficulties include *peer rejection* (Kiesner, 2002; Prinstein & Aikins, 2004), *victimization* by peers (Kim & Leventhal, 2008; Klomek et al., 2007, 2011; Saluja et al., 2004; Van der Wal et al., 2003), and *racial discrimination* (Gaylord-Harden & Cunningham, 2009; Sirin et al., 2015). In contrast, *peer acceptance and support* have been found to be significant protective factors against mental health problems (Burke et al., 2017), in part because they reduce the degree of *stress* experienced by adolescents (Van Ryzin & Roseth, 2021).

A2. Existing Strategies to Address Academic and Mental Health Issues

To date, most studies targeting racial disparities in academic achievement have focused on reducing the impact of racial discrimination through individual coping mechanisms (e.g., Umaña-Taylor et al., 2008) or self-affirmation (Cohen et al., 2014). However, these individual-deficit based approaches are not only largely ineffective, but are less ideal than empowerment-based approaches that foster socially supportive environments (Crutchfield et al., 2020).

Existing school-based approaches to prevention of mental health problems also have an uneven track record (Merry et al., 2012). Some programs have been found to be effective post-assessment, but effects did not maintain over time (Challen et al., 2014; Pössel et al., 2013). Many other programs were found to have no effects on student mental health (Araya et al., 2013; Sawyer et al., 2010; Stallard et al., 2012; Tak et al., 2015; Wei et al., 2015).

Finally, research finds that existing SEL programs produce only small effects on peer-based risk and protective factors in middle and high school (see de Mooij et al., 2020 for review), and

meta-analytic research finds that SEL programs markedly diminish in effectiveness after elementary school (Durlak et al., 2011). In a recent review of SEL programs, Yeager (2017) identified the need to integrate SEL with a more *student-centered* instructional approach involving *active learning*, which would satisfy the adolescent need for increased autonomy while developing social-emotional skills experientially in *authentic social situations with peers*; he hypothesized that the failure to comply with these guidelines is the reason for the decline in the effects of existing SEL programs during middle and high school.

A3. Development and Validation of a New Strategy

Our proposal targets a transformation in social-emotional learning that takes full advantage of evidence-based instructional practice to achieve *synergistic effects on peer-based risk and protective factors*, which in turn should impact both academic achievement and mental health.

A3.1 Project Overview. As recommended by Yeager (2017), we seek to create an SEL curriculum that *fully incorporates a student-centered instructional approach* (i.e., cooperative learning, CL) to build social-emotional skills and positive, supportive peer relations. We will support this shift with technology to enable a *high-fidelity, scalable implementation* that does not burden teachers. We will simultaneously target multiple key factors that contribute to academic and mental health difficulties, particularly those that impact low-SES and minoritized youth.

A3.2 Underlying Theoretical Framework. Our approach leverages Contact Theory (Pettigrew, 1998), a powerful framework for addressing prejudice and promoting positive intergroup relations. Contact Theory specifies the conditions under which *social contact can lead to true integration among members of different social groups*. Specifically, social contact must incorporate the following features: (a) individuals are brought together as equals; (b) pairs or groups of individuals are given a common goal to direct their interactions and to incentivize

achieving goals; (c) an extended amount of interpersonal contact, preferably including mutual disclosure to assist participants in discovering areas of commonality; and (d) those in positions of authority (i.e., teachers) explicitly encourage and support positive, collaborative interactions. When these conditions exist, intergroup contact leads to reduced prejudice, and individuals develop more favorable opinions of members of other groups, which in turn promotes more positive relationships (Pettigrew & Tropp, 2006). In contrast, when these conditions do not exist, *intergroup contact will increase, rather than reduce, intergroup tensions* (Cohen & Lotan, 1995).

Cooperative learning (CL) is a small-group instructional approach that closely mirrors the key features of Contact Theory. Specifically, CL brings students together under conditions of *positive interdependence*, where goals are structured such that individual goal attainment promotes the goal attainment of others in the learning group and vice versa. CL activities also provide *individual accountability* to ensure that students have a strong incentive to contribute to the success of the group. Finally, a CL lesson must also include (a) explicit coaching by teachers to enhance students' *collaborative social skills*, and (b) guided *reflection and processing* of group performance after the lesson is completed. More detail on CL can be found in Appendix J.

A3.3 Strong Evidence of Promise for Significant Impact. Research has found that when these design aspects are established in CL lessons, the quality of social interactions will improve (Johnson & Johnson, 1989; Roseth et al., 2008). Specifically, students are more likely to interact in ways that promote goal attainment of others in the group, such as providing instrumental and emotional support and sharing information and resources (Deutsch, 1949, 1962; Johnson & Johnson, 1983). In addition, students learn how to communicate effectively, help the group make good decisions, build trust, and understand one another's perspectives (Johnson & Johnson, 1989, 1999). These socially competent interactions promote more *positive, supportive*

relationships among students (Johnson & Johnson, 1989, 2005; Roseth et al., 2008; ES = .24 to .45) and enhance student *motivation* (ES = .36 to .42), and *academic achievement* (ES = .43 to .52; Johnson et al., 2014, Roseth et al., 2008). CL can also *reduce peer rejection* (*ES* = .32; Mikami et al., 2005), *victimization* (*ES* = .69 among marginalized students; Van Ryzin & Roseth, 2018), and *stress and mental health problems* (*ES* = .24 to .29; Van Ryzin & Roseth, 2021).

With regards to racial/ethnic disparities, CL can reduce bias and discrimination by *enhancing cross-ethnic peer relations* (Johnson & Johnson, 2000; Slavin & Cooper, 1999). CL has been found to promote cross-race academic support and more frequent cross-race friendships (Johnson et al., 1984; Slavin, 2001; Weigel et al., 1975). Such cross-race friendships, in turn, can promote greater academic engagement (Kawabata & Crick, 2015). CL has also been found to *reduce racial/ethnic disparities in social and academic outcomes* (Van Ryzin et al., 2020).

A3.4 Best Practice in Instruction via PeerLearning.net. Despite the many benefits of CL, we have found that teachers face challenges delivering high fidelity CL lessons, including: (1) *designing CL activities* optimally through the explicit inclusion of all of the essential design elements described above; and (2) *managing the flow and timing of the activities* to complete the lesson within the class period while dealing with unexpected disruptions. Research finds that *implementing the key design elements with fidelity does not always occur, and when some elements are missing, the impact of CL is greatly reduced* (Roseth et al., 2008).

To assist teachers in implementing CL, we will give them access to PeerLearning.net (http://PeerLearning.net), which provides easy-to-use lesson templates with workflow support that enable the straightforward design and delivery of evidence-based CL lessons (e.g., jigsaw, peer tutoring). PeerLearning.net enables teachers to: (1) provide a more powerful learning experience for students through greater *design fidelity* to CL standards; and (2) deliver CL more

frequently, with less stress, and a great likelihood of success, through greater *instructional support*. The software is Web-based and thus is rapidly scalable and accessible to Title I schools and those in rural areas. More detail, including screen shots, is provided in Appendix J.

We recently completed a one-year cluster randomized trial of PeerLearning.net using 12 middle/high schools in Oregon, with 6 schools randomized to use PeerLearning.net and 6 conducting business as usual. The results (Table 1) indicated that students in intervention schools experienced significantly better outcomes in the areas of peer relations, stress, and social-emotional skill development, which mirror previous research on CL, although with larger effect sizes. These effects were achieved by teachers in implementation schools using PeerLearning.net only a few times a month. These results suggest that PeerLearning.net (a) *is as effective as no-tech CL, or more so*, and (b) *supports best-practice in CL in a way that will be implemented by teachers*.

Table 1. Multi-level regression assessing the effects of intervention condition (i.e., PeerLearning.net vs. business as usual) on student outcomes (predicting post-intervention scores, controlling for baseline).

Outcome	Coefficient (SE)	Effect Size (Variance Explained at Level 2)
Positive peer relations	.44 (.14)**	.53
Victimization	-.29 (.13)*	.36
Stress	-.49 (.10)***	.80
Prosocial behavior	.24 (.10)*	.36
Empathy	.23 (.08)**	.56
Self-awareness	.31 (.07)***	.82
Social awareness	.26 (.09)**	.48
Self-management	.31 (.10)**	.55
Relationship skills	.23 (.09)**	.46
Decision-making	.24 (.06)***	.73

*$p < .05$. **$p < .01$. ***$p < .001$.

PeerLearning.net was also found to have *positive effects on teachers*. Since it implements best-practice in CL with minimal teacher burden, intervention teachers reported higher levels of self-efficacy ($B = .14$, $SE = .04$, $p < .001$, $ES = .45$), lower levels of stress ($B = -.29$, $SE = .11$, $p < .001$, $ES = .52$) and reduced burnout ($B = -.33$, $SE = .10$, $p < .001$, $ES = .38$).

A3.5 Student-centered SEL Curriculum. In this study, we propose to develop a social-emotional learning (SEL) curriculum that will be delivered using PeerLearning.net to ensure

adherence to best practices in small-group instruction (i.e., CL). Once developed, the curriculum will be available for use in any instructional setting (e.g., health classes, content classes, advisory period, homeroom). Given that our partner districts are in Oregon, our SEL curriculum will align with Oregon state standards for SEL that closely follow the CASEL framework, which specifies 5 dimensions of SEL: (1) Self-Awareness, (2) Self-Management, (3) Social Awareness, (4) Relationship Skills, and (5) Decision-Making. The proposed curriculum will contain 50 lessons, approximately 2 per week during 9th grade (see Section B.2).

A4. Absolute Program Priorities 1 and 4 and Competitive Preference Priority 1.

A4.1 Supporting Absolute Priority 1: Demonstrating a Rationale. As discussed above, social risk and protective factors play an important role in both academic achievement and mental health (see A1.1 and A1.2), and we have presented promising evidence that our approach can impact these risk and protective factors *and* the key outcomes (see A3.3 and A3.4).

A4.2 Supporting Absolute Priority 4: Meeting Student Social, Emotional, and Academic Needs. CL has promising evidence for its impact on academic, social-emotional, and mental health outcomes, as well as evidence for its ability to reduce bias, prejudice, and racial/ethnic disparities in academic and social-emotional outcomes (see A3.3). Thus, CL alone could potentially meet students' academic and mental health needs. However, we propose to implement a *comprehensive, integrated solution* that includes an SEL curriculum (see B.2) designed to incorporate best practices in student-centered instruction as well as technology to assist teachers in delivery (i.e., PeerLearning.net). The technology offers many advantages, including: (1) optimal design fidelity and consistent, low-burden delivery of CL; (2) rapid scalability across schools and districts; and (3) straightforward implementation with enhanced monitoring and reduced teacher training requirements (see Appendix J). Thus, *the integrated*

solution could generate synergistic effects on student outcomes by addressing a wide range of key peer-based risk and protective factors for both mental health and academic achievement.

A4.3 Supporting Competitive Preference Priority 1: Partnerships. Our Development Team will include representatives from Community Colleges (i.e., [redacted], Lane Community College) and Minority-Service Institutions (i.e., [redacted] Portland State U.). Letters of Commitment are provided in Appendix C. The Development Team will partner with our key personnel ([redacted] and [redacted] to develop and pilot the SEL lessons.

A5. Scaling up for Broad Impact

This proposed project aims to reach ~3,000 youth making the middle-to-high school transition. The proposed project includes technology-supported implementation of best-practice in CL instruction and adds curricular development efforts optimized to take full advantage of PeerLearning.net capabilities while providing vital SEL instruction. The combined solution will prepare students with the social-emotional skills needed to be successful in high school.

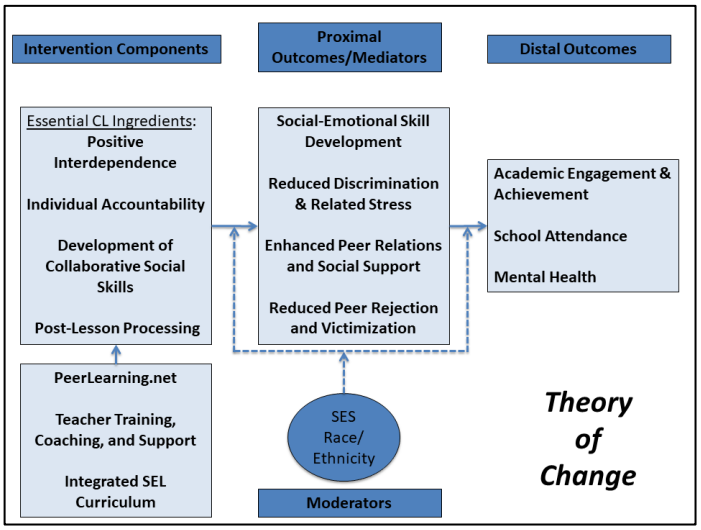
In Year 5, we will train ~300 subject-area teachers (e.g., math, science, humanities, ELA) in PeerLearning.net, preparing them to extend the effects of small-group instruction to their own students (see B3). In this training, teachers will develop an understanding of CL and the delivery of small-group lessons through PeerLearning.net, thus enabling them to adapt the technology to their own curricula and learning materials (see B6).

Moreover, the proposed project will produce new evidence disseminated broadly to the community of educational research and practice, thus enabling a broad range of schools across the country (e.g., high-poverty, urban, suburban, & rural) to implement, replicate, or expand on our solution. The project deliverables will provide a comprehensive program that is cost-efficient compared to other solutions, easily accessible, and scalable to other contexts.

B. PROJECT DESIGN

B1. Theory of Change

The primary goal of this project is to accelerate access to best practices in instruction while concurrently promoting positive social-emotional outcomes and in turn reducing academic and mental health disruptions and disparities. Building on theory and research, we hypothesize that PeerLearning.net, combined with our SEL curriculum, will enhance social-emotional skill development and have salutary effects on peer-based risk and protective factors. These proximal outcomes should enhance academic and mental health outcomes for all students and reduce disparities for low-SES and minoritized students. We will *evaluate the degree to which each hypothesized mechanism (e.g., stress, social support) mediates program effects*, which will suggest ways in which we can optimize our program for different contexts.



B2. SEL Curriculum Development

Our curriculum is designed to address the 5 dimensions of the CASEL framework (i.e., Self-Awareness, Self-Management, Social Awareness, Relationship Skills, Decision-Making).

Lesson Content	CASEL Framework
Lessons 1-10: Organizational and study skills, growth mindset.	Self-Management
Lessons 11-20: Emotional awareness and self-regulation, critical	Self-Awareness, Self-
Lessons 21-30: Identity development, purpose, future orientation.	Self-Awareness
Lessons 31-40: Peer refusal, active listening, conflict resolution.	Relationship Skills
Lessons 41-50: Social media, bullying and dating violence,	Social Awareness,

We will use an iterative development approach for our SEL curriculum known as *Agile* that aligns with the collaborative nature of this project (Cao & Ramesh, 2008; López-Nores et al., 2009). The *Agile* method breaks development tasks into manageable increments called *sprints*, or short development timeframes. Each sprint is designed to provide enough curriculum functionality to have a testable release. Every sprint will start with a planning session where the development team reviews the goals and key features for the curriculum unit to be developed. We will conduct sprints of 4-6 weeks where we create 4-8 lessons, depending on length, and release them for user acceptance testing (UAT). In an iterative fashion, we will then conduct a sprint on another set of lessons while waiting for teacher feedback from UATs, and this feedback will be incorporated into lesson design before the lessons are released again. The UATs will ensure that each portion of the curriculum meets the needs of teachers, has clear and appropriate language, and is enjoyable for students. More detail is available in Appendix J.

B3. Implementation Plan

Our plan illustrates a collaborative approach to development, implementation, and evaluation. In Years 1 and 2, we will involve a Development Team of 6-8 teachers, college and university faculty, and members of support organizations to partner in the development and piloting of the SEL curriculum (in addition to [redacted] and [redacted] who will lead the effort). The Team will review the lessons and/or pilot them in their classrooms and provide detailed feedback on lesson design and content, student engagement and learning, and the feasibility of large-scale implementation. This feedback will be incorporated into the lesson design using an iterative process (i.e., *Agile*, see Section B2). We will provide dedicated support and financial incentives to the Team; more detail on the composition of the team and the financial arrangements can be found in Appendix C (Letters of Commitment) and the Budget Justification.

In Years 3 and 4, we will recruit 20 schools to collaborate with us in the evaluation of the comprehensive intervention (i.e., PeerLearning.net and the SEL curriculum). *We will deliver the SEL curriculum in Year 3, and follow these students into 10th grade in Year 4 to assess the persistence of effects when the intervention has been completed*.

In Year 5, we will offer our intervention to the control schools, provide *comprehensive training to all teachers in all schools* to enable them to use PeerLearning.net in their own teaching, and disseminate project results. A more detailed timeline is available in Appendix J.

Project Implementation Plan	
Years 1 and 2 **2023-2024 and**	• Recruitment of partner teachers for curriculum development. • Iterative co-creation of SEL lessons with input and guidance from the • Piloting of lessons, collection of feedback, and modification as needed.
Year 3 **2025-2026**	• Identification of intervention and matching control schools; initiation of • Teacher/student (9th grade) data collection (fall and spring) in both • Monitoring of implementation (tracking usage/lesson delivery, addressing • Monitoring of any use of CL concepts in control schools.
Year 4 **2026-2027**	• Student (10th grade) data collection in intervention and control schools. • Monitoring of any use of CL concepts in control schools.
Year 5 **2027-2028**	• Preparation of intervention teachers and schools for program sustainment. • Implementation of intervention in control schools. • Comprehensive training for subject-area teachers to use PeerLearning.net • Evaluation Team completes (a) fidelity of implementation study and (b)

B4. Project Goals and Measurable Objectives

In the table below is our list of key project goals and *measurable objectives* (i.e., progress toward meeting each objective can be clearly assessed and reported during the project). These goals and objectives target EIR program priorities and align with the underlying conceptual framework for this project.

Program Goal 1 (Years 3 & 5). Reach at least 2,700 high-needs Grade 9 students with high quality social-emotional learning (SEL) and demonstrate a positive impact after one and two years on academic, social-emotional, and mental health outcomes.
Measurable Objective 1.1: By the end of Year 3 (intervention group), reach at least 1,350 Grade 9 students with at least one year (~50 hours) of high-quality SEL instruction via PeerLearning.net. Reach another 1,350 students by the end of Year 5 (control group).
Measurable Objective 1.2: By the end of Year 3 (intervention group), demonstrate medium standard deviation effects (Hedges g = .50) on student academic achievement, attendance, and self-reported social-emotional and mental health outcomes.
Program Goal 2 (Years 3 & 5). Provide high-quality professional development to approximately 45 teachers to enable them to deliver the SEL curriculum.
Measurable Objective 2.1: By the end of Year 3 (intervention group), enroll approximately 22-23 teachers in training courses that encompass the concepts of CL, as well as a working knowledge of how to deliver SEL lessons in PeerLearning.net. Enroll another 22-23 teachers by the end of Year 5 (control group).
Measurable Objective 2.2: By the end of Year 3 (intervention group), motivate teachers using the SEL curriculum to deliver at least 80% of the lessons to their class, with the same goal for the control group teachers in Year 5..
Measurable Objective 2.3: By the end of Year 3 (intervention group), teachers using the SEL curriculum intervention schools demonstrate medium effect size growth (Hedges g = .50) in self-efficacy and similar reductions in stress and burnout compared to control group teachers.
Program Goal 3 (Year 5). Provide high-quality professional development to approximately 300 teachers to enable them to use PeerLearning.net in their own instruction.
Measurable Objective 3.1: Enroll least 300 teachers in training courses that encompass the concepts of CL, as well as a working knowledge of how to design and deliver CL lessons in PeerLearning.net using their own curricula and learning materials.
Measurable Objective 3.2: Motivate at least 50% of subject-area teachers to implement at least one CL lesson/month using PeerLearning.net in their own classroom w/subject-area lessons.
Measurable Objective 3.3: By the end of Year 5, teachers using PeerLearning.net at least once a month demonstrate medium effect size growth (Hedges g = .50) in self-efficacy and similar reductions in stress and burnout after the first year compared to teachers who don't use it.
Program Goal 4 (Year 5). Disseminate information about the project to the education research and practice communities through articles, presentations, social media, and podcasts.
Measurable Objective 4.1: By the end of Year 5, publish at least 3 practitioner articles, 10 blogposts, and 10 podcasts to share different perspectives on the progress of the project to be disseminated through the Center on Human Development (https://chd.uoregon.edu/) and the Oregon Research Schools Network (https://orsn.uoregon.edu/).
Measurable Objective 4.2: By the end of Year 5, publish at least 4 scholarly articles in peer-reviewed educational, developmental, and SEL journals, alongside more than 6 research presentations at established conferences, to contribute new ideas and evidence to the field.

B5. Evaluation Setting

Our evaluation will be conducted in partnership with the Salem-Keizer school district, the second largest district in Oregon (> 38,000 students). The student body is diverse (~40% Latinx, ~40% White ~10% Multi-racial, ~5% African-American), and more than 90% of students are considered to be economically disadvantaged, so *project results should be highly generalizable*. We will recruit 20 schools, with 10 randomly assigned to intervention condition. Within the intervention schools, we will train ~2-3 teachers/school (see B4 below) to deliver our program; across 10 intervention schools, ~25 teachers will be trained. In past studies, we have rarely lost teachers after assignment to condition, but we will assume a 10% attrition rate for a final sample of ~22-23 teachers. We will recruit a similar number of teachers in control schools, for a total sample of ~45 teachers. *We will survey teachers in Year 3 but not Year 4*, when students are in 10th grade and the program is not present. In Year 5, we will provide training in the SEL program for the control schools and *will provide general training for subject-area teachers (e.g., math, science) in all schools to enable them to use PeerLearning.net in their own instruction*. We anticipate that these subject-area teachers will number ~15 per school, or ~300 in total.

We expect 150 students to participate, *on average*, from each school, for a total targeted sample of 3,000 (1,500 in intervention schools and 1,500 in control schools). Based on previous similar studies (Low et al., 2019), we anticipate that approximately 10% of students will be lost due to family relocations. Thus, we assume a final sample of ~2,700 students.

B6. Teacher Training, Coaching, and Support

To prepare for the delivery of our SEL program, we will provide *1 training session of 3 hours* at the beginning of the school year where teachers are the end-users of PeerLearning.net and thus experience lessons from the student perspective. In this training, teachers will develop a

deep understanding of the *key CL design ingredients* and why they are vital to lesson success. Training will include different types of CL lessons so teachers will not only learn the key concepts but will also gain valuable insight into the value of CL in an experiential manner. Our training program will incorporate *Motivational Interviewing (MI)* to promote *rapid adoption and commitment to change* among teachers (Larson et al., 2021). We will also provide *SEL training designed for teachers* to comply with CASEL's framework for systematic change, where we focus on the development of social-emotional skills (e.g., mindfulness, active listening) that support skillful communication (Mahoney et al., 2020). Training will be delivered according to school schedules for professional development and is designed to be low-burden so as not to interfere with other initiatives. PeerLearning.net also has automated lesson simulation capability to support teachers in working with the software before teaching a lesson to students.

During the school year, our project support staff will serve as the first point of contact for teachers who have questions, and these staff will provide periodic webinars and other coaching opportunities. These support staff will periodically review data dashboards in PeerLearning.net to (1) identify teachers who are delivering the SEL curriculum on schedule, in order to ensure that these teachers can be acknowledged, and (2) identify teachers who are not on schedule with the SEL curriculum, in order to follow up with additional resources and support. We will also implement a help desk to collect, monitor, and resolve any issues with the software.

C. PROJECT PERSONNEL

The proposed project is a partnership between a large, diverse school district (Salem-Keizer), researchers and curriculum designers ([redacted] & [redacted] school and district personnel (see Appendix C, Letters of Commitment) and experts in evaluation methods

(WestEd). In-kind contribution is provided by the UO Foundation (see Appendix H). Resumes/CV's for key personnel and contributors are in Appendix B.

The project is led by [redacted] a Research Associate Professor at the University of Oregon, who has an extensive record with CL and grant leadership. He served as the Primary Investigator (PI) for a randomized trial of CL in Oregon middle schools (Van Ryzin & Roseth, 2018, 2019, 2021). He also led the design and piloting of PeerLearning.net, and has conducted a number of teacher trainings on mindfulness and active listening. [redacted] will be supported by [redacted] who has led numerous federally-funded projects focused on students with disabilities over more than 25 years. [redacted] will help to ensure that all SEL lessons address the diverse learning needs of students with disabilities. The overall composition of the project teams is provided below. More detail can be found in Appendix C and the Budget Justification.

Project Teams	
Development Team	[redacted] was Senior Research Scientist at the Committee for Children for nearly fifteen years, leading the development of new elementary and secondary versions of *Second Step*, the most widely used SEL program in the world. More recently, he served a similar role at *CharacterStrong* as Director of Research. [redacted] was a lead developer on the middle school SEL curriculum Committee for Children. More recently, she has consulted with the Committee for Children for the last 10 years on the *Second Step* program. [redacted] will bring knowledge of CL and PeerLearning.net, and [redacted] will bring experience working with students with students with disabilities. They will be joined on the Development Team by 6-8 teachers, university faculty, and members of educational support organizations who have expertise in CL, PeerLearning.net, and/or SEL. Among these are [redacted] (Lane Community College), [redacted] (Portland State U., a minority-serving institution), and [redacted] (Lane Education Service District). More detail is available in Appendix C (Letters of Commitment).
Evaluation Team	The evaluation will be led by [redacted] and [redacted] at WestEd. [redacted] is the Research Director, Learner Variability and Impact, and has 25 years of experience in the implementation and evaluation of innovative projects and interventions. [redacted] is a Senior Researcher in Special Education focused on advancing rigorous research and evaluation in learner variability and special education. More detail is available in the WestEd Budget Justification and in Appendix B (resumes for key personnel).

D. MANAGEMENT PLAN

UO Foundation (led by [redacted] will provide (a) fiscal oversight, including executing contracts, paying invoices for partners, financial reporting, and paying incentives, among other responsibilities; (b) project management to hit milestone targets for lesson development, project implementation, and completion of all project deliverables; (c) recruitment and stewardship of school and district partners; (d) coordination and delivery of teacher training, (e) tracking of teacher engagement; (f) support to our evaluation partner in issues of project management, measurement, and data analysis; and (g) development of dissemination plan and leadership on the creation of dissemination materials.

Within the Development Team, [redacted] will be primarily responsible for the development of the social-emotional learning (SEL) curriculum, supported by [redacted] and [redacted] with our development partners (see Appendix C). Members of the team will assist with (a) measurement and data analysis issues, (b) development of implementation and dissemination strategies, and (c) creation and distribution/publication of dissemination materials.

Our evaluation partner (WestEd) will be responsible for (a) research design, organization of data collection and analysis, and evaluation of outcomes; (b) the identification, consenting, and data collection within selected treatment and comparison schools to achieve the most rigorous comparative analysis; (c) school visits to support evaluation of performance measures; (d) collaborating with PI [redacted] to produce federal reports and dissemination materials for stakeholders; and (e) submission and oversight of Institutional Review Board (IRB) materials.

The Salem-Keizer district will be responsible for (a) disseminating opportunities to schools and teachers; (b) supporting data collection and sharing of archival data; (c) the development and sustainability of school support, culture, and shared instructional practices in participating

schools; (d) envisioning, planning, and supporting future scaling to additional schools at the conclusion of grant period; and (e) providing iterative feedback on our intervention.

E. PROJECT EVALUATION

In Years 3 and 4, WestEd will lead an independent evaluation of this project, including process, implementation, cost, and impact data, to address evaluation questions that prioritize the Standards for Excellence in Education Research (SEER; https://ies.ed.gov/seer/). WestEd has conducted numerous multisite randomized controlled trials for EIR, IES, NSF, and other federal and state organizations. The evaluation project director (PD), [redacted] is currently PD of the evaluation for a 2022 EIR Expansion project and lead methodologist for a 2022 EIR Mid-Phase project. He will be supported by [redacted] (see resumes in Appendix B).

The evaluation will include studies of (1) the impact of the SEL program on confirmatory outcomes, using a design that meets What Works Clearinghouse (WWC) 5.0 Standards Without Reservations, preregistered in the Registry of Efficacy and Effectiveness Studies (REES) (SEER1); (2) fidelity of implementation (FOI) (SEER3 and SEER4); (3) an implementation study with feedback to inform the development of PeerLearning.net, FOI, and factors that facilitate or impede program development, scaling, and potential replication (SEER8); and (4) a cost analysis and cost effectiveness study (SEER5) using the ingredients method (Levin et al., 2017) to support sustainability and scalability.

E1. Evaluation Questions

The evaluation will address questions concerning the implementation of key program components, as well as confirmatory and exploratory impacts on proximal and distal outcomes (see Theory of Change, Section B1). Each measurement instrument included in the table below is described fully in Appendix J, including published evidence for validity.

Evaluation Question	Data Sources
Are fidelity of implementation thresholds reached?	PeerLearning.net data dashboard, which records all lessons taught by each teacher
What are the barriers and supports to successful implementation?	Teacher logs, program developer/teacher survey (to be created), and interviews
What is the achieved treatment-control contrast?	Teacher logs regarding any implementation of SEL programs and/or CL components in both intervention and control conditions
Confirmatory Impact Question Is there a positive intent-to-treat impact of the SEL program, relative to business-as-usual (BAU), on 9th grade school students': • Academic achievement • Attendance • Academic engagement • Mental health	• School records, including GPA and end-of-course (EOC) exam scores, attendance • *Engagement vs. Disaffection in Learning Scale* (Skinner et al., 2009) • *Generalized Anxiety Disorder 7* (GAD-7; Spitzer et al., 2006) • *Patient Health Questionnaire* (PHQ-A; Hughes & Melson, 2008; Johnson et al., 2002)
Exploratory Impact Questions Is there a positive intent-to-treat impact of the SEL program, relative to business-as-usual (BAU), on teachers': • Self-efficacy • Stress • Burnout	• *Teachers' Sense of Efficacy Scale* (TSES; Tschannen-Moran & Hoy, 2001) • *Perceived Stress Scale* (Cohen et al., 1983) • *Maslach Burnout Inventory—Educators Survey* (Maslach et al., 1996)
Impacts on Potential Mediators Is there a positive intent-to-treat impact of the SEL program, relative to business-as-usual (BAU), on 9th grade school students': • Social-emotional skill development • Discrimination and related stress • Peer relatedness and support • Social rejection and victimization	• *Washoe County School District (WCSD) Social and Emotional Competency Assessment* (Crowder et al., 2019) • *Peer Discrimination* subscale (5 items) of the *Adolescent Discrimination Distress Index* (ADDI; Fisher et al., 2000) • *Perceived Stress Scale* (Cohen et al., 1983) • *Relatedness Scale* (Furrer & Skinner, 2003) • *Classroom Life Scale* (Johnson & Johnson, 1983) • Peer-nomination sociometric procedure • *University of Illinois Bully Scale* (Espelage & Holt, 2001)

Evaluation Question	Data Sources
Moderating/differential Impacts Is there a differential impact of the program on teacher and student outcomes depending on teachers' certification, years of experience, race/ethnicity, and gender and students' race/ethnicity, gender, disability status, English Learner status, free/reduced-price lunch status. *This analysis will enable us to evaluate whether our program can reduce disparities*.	• Teacher and Student demographic data

E2. Evaluation that Meets What Works Clearinghouse (WWC) Standards

The confirmatory and exploratory research questions (see Table 2) address key program components, main proximal outcomes, and final impact outcomes from the Logic Model (see Appendix G). More detail on measures and statistical models is provided in Appendix J.

E.2.1 Sample. The impact study will examine the effects of the program on outcomes for ~2,700 students and ~45 teachers in 20 high schools in Oregon. We anticipate that each school will include an average of 150 9th grade students and 2-3 teachers/school will participate. We also anticipate ~10% attrition, which has been built into our power analyses.

E.2.2 Randomization. WestEd will randomly assign the 20 schools to either the treatment (PeerLearning.net/SEL curriculum) or control (BAU) condition using the *blockTools* (Moore, 2012) package in *R*. Randomization will block by school-level characteristics, which may include the percentage of students by race/ethnicity, disability status, English Learner status (ELL), free or reduced-price lunch (FRPL), to ensure that the schools are equivalent on key characteristics in each condition at baseline. All schools will be randomly assigned in 2026-2027 (20 schools; 10 treatment and 10 control) and followed for two consecutive years.

The cluster-level RCT is designed to meet WWC 5.0 standards without reservations. Random assignment is of 20 high schools and includes 3,000 9th grade students (2,700 after assuming

10% attrition). We will exclude all late joiners (i.e., after randomization) per WWC 5.0. Contamination is highly unlikely and will be monitored using teacher logs. All efforts will be made to reduce attrition at the school, teacher, and student levels, including providing financial incentives for participation and building positive relationships with schools and teachers. Teachers in the control condition will be offered training in the program in Year 5 of the project, after the two-year implementation in treatment schools is complete. Training will also be offered to all subject-area teachers in each school and access provided for them to use PeerLearning.net with their own learning materials in their own classrooms in Year 5.

E.2.3 Statistical Power. WestEd evaluated the minimum detectable effect size (MDES) for confirmatory impacts on proximal student outcomes assuming a school-level RCT, with 20 high schools and 2,700 students. We explored multiple scenarios based on these sample sizes, with several plausible assumptions about variance partitioning. We assumed power of .80, Type-1 error rate of .05, and specific values of the ICC, R-squared and other parameters described in Appendix J. The MDES ranges between .253 and .354, and conservatively, we assumed the latter. This effect size is within the range of effect sizes described in section A3.3 above.

E.2.4 Impact Measures. Impacts will be assessed on outcomes listed below (full description in Appendix J). Confirmatory and exploratory analyses rely on these instruments:

Unit	Domain	Measure	Timing
Students	Academic achievement	GPA	End of 8th 9th 10th grades
Students	Attendance	Attendance records	End of 9th and 10th grades
Students	Academic engagement	*Engagement vs. Disaffection in Learning Scale* (a = .72)	Pre and Post (9th grade) plus follow-up (10th grade)
Students	Mental Health	*Generalized Anxiety Disorder 7* (a = .92) *Patient Health Questionnaire* (a = .84)	Pre and Post (9th grade) plus follow-up (10th grade)

Students	Discrimination and related stress	*Peer Discrimination* subscale of the *Adolescent Discrimination Distress Index* (a = .90) *Perceived Stress Scale* (a = .86)	Pre and Post (9th grade) plus follow-up (10th grade)
Students	Peer Relatedness and Support	*Relatedness Scale* (a = .86) *Classroom Life Scale* (a = .91)	Pre and Post (9th grade) plus follow-up (10th grade)
Students	Student Social-Emotional Skills	*WCSD Social and Emotional Competency Assessment* (a = .88)	Pre and Post (9th grade) plus follow-up (10th grade)
Students	Student Social Rejection and Victimization	Peer sociometric procedure (a = n/a) *University of Illinois Bully Scale* (a = .87)	Pre and Post (9th grade) plus follow-up (10th grade)

E.2.5 Impact Analysis. WestEd will use hierarchical linear models (HLM; Raudenbush & Bryk, 2002) applied to cluster-level RCTs (Bloom, 2005) for estimates of intent-to-treat impact. The standard form of the benchmark impact model (detailed in Appendix J) will include an indicator of treatment status, student-level covariates (e.g., race/ethnicity, gender, disability status, ELL, FRPL, age/grade, and pretest measures), school characteristic, and school and student random effects. The same model will be used to evaluate initial treatment effects (during 9th grade) as well as maintenance of effects (from 9th to 10th grade). We are not certain that students will remain with a single teacher, so we are planning to use two-level models (students within schools). However, we will explore three-level models (students within teachers within schools) if students stay within teacher. To address missing data, we will use the sequential modeling imputation approach (Grund et al., 2021), which uses Markov chain Monte Carlo (MCMC) methods to estimate the parameters of the imputation models and sample imputations for the missing data from the conditional distributions of the variables (Gelman et al., 2014). For the confirmatory impact analyses, we will follow WWC topic-area review

protocols to report all necessary statistics, including reporting sample sizes at each stage in executing the study design, determining baseline equivalence on demographics and pretests, and calculating standardized mean difference effect sizes. For exploratory analyses of teacher outcomes, we will use the same modeling approach described above, but include teacher outcomes and characteristics. WestEd will also assess differential impacts on confirmatory outcomes for important student moderators (e.g., race/ethnicity, gender, disability status, English learner status, SES, age/grade). *These analyses will indicate the degree to which the program can reduce disparities in key outcomes*. Moderation models will include interaction effects between the proposed moderators and the treatment indicator. Questions of mediation will be estimated using a multilevel structural equation modeling (ML-SEM) framework. We will examine whether proximal social effects (e.g., peer relatedness) mediate program effects on distal student outcomes (e.g., mental health). *These analyses will highlight the key processes by which the intervention impacts distal outcomes, enabling us to optimize program delivery for different contexts*. Analyses will be conducted using *lme4* (Bates et al., 2015) and *Lavaan* (Rosseel, 2012) in *R*. All statistical code will be preregistered in REES.

E.2.6 Cost Effectiveness. WestEd will conduct a cost analysis based on the Resource Cost Model (Levin & McEwan, 2002) to estimate the implementation cost of the program, including professional development, and whether it is cost effective relative to the BAU condition. Costs will be identified in both the intervention and control conditions using the "ingredients method" (Levin et al., 2017). Analyses will identify costs associated with each program component, distinguish start-up costs from ongoing costs, and convert total costs to per-student costs. The cost data and effect size estimates will be combined to estimate the impact of the program on a per dollar basis following up-to-date recommendations for cost analyses (Hollands et al., 2021).

E3 Fidelity of Implementation Evaluation

E3.1 Fidelity of Implementation (FOI). The implementation study will utilize the FOI dashboard in PeerLearning.net, which can track usage data by teacher, including log-in and length of time using the program. These data will be incorporated in the FOI analysis. Additionally, WestEd will create a teacher log that includes a FOI Checklist (to be developed during the first 2 years of the project) that encompasses the key design dimensions of CL, and this checklist will capture the degree to which control teachers are using CL. The checklist and dashboard data will be aggregated to estimate overall FOI. Aggregation may include latent class analysis; the final aggregation approach will be determined during data analysis.

WestEd will assess adherence to an ongoing adaptation of the program logic model (Appendix G), including key components, outputs related to inputs, and attainment of fidelity thresholds (SEER 3 & 4). Key components and fidelity thresholds are: the project team recruits 20 schools and 2-3 teachers per school for the RCT; professional development and on-going support is delivered to 100% of teachers; teachers deliver 80% of the SEL program (i.e., number of lessons delivered) as measured by the PeerLearning.net dashboard; 80% of students complete all SEL lessons as measured by the dashboard. Findings will be regularly shared with the development team and implementation team to decide whether key components of the program and fidelity thresholds have been met and to make adjustments as necessary.

E3.2 Variation in Implementation. WestEd will collect quarterly teacher practice logs from all intervention and control teachers regarding their instructional practices and routines and will interview a sample of 10 intervention teachers to expand on themes in survey responses and to identify barriers and supports to implementation. This information will provide insights to understand barriers and supports in PeerLearning.net implementation (SEER4). The teacher log

information will be reported to the project leadership and Development Team to support the program model during implementation and to inform the refined Logic Model (Appendix G).

E3.3 Treatment-Control Contrast. Data from intervention and BAU conditions about coverage of SEL topics will be collected through the PeerLearning.net dashboard and teacher logs to evaluate the planned and realized treatment–control contrasts (Weiss et al., 2014) and achieved relative strength of the SEL program implementation (Hulleman & Cordray, 2009).

E4. Potential for Sustainability and Scale-Up

Surveys and interviews/focus groups of key participants (including Development Team members, teachers, and administrators) will establish the classroom-level conditions for sustaining the SEL program implementation (SEER8). This information will inform necessary adjustments and support replication/scaling to new contexts.

E5. Evaluation Performance Feedback

A primary goal of the evaluation is to provide frequent performance feedback to project staff and assessment of progress toward intended outcomes that will allow ongoing adaptation and improvement of the SEL program model and its implementation. The implementation of the RCT impact study will allow the evaluators to monitor progress and serve as a critical and independent thought partner, helping the leadership and Development Team refine its logic model, confirm fidelity thresholds, develop measures, and establish which program components are being implemented successfully or need refinement. Working together, we will identify specific questions that are critical to the continuous improvement of the program. The long-term goals are to refine the program logic model and to provide data to support a viable and scalable process that is suited to mid-phase validation, dissemination, and scalability.

REFERENCES

Aarons, G. A., Ehrhart, M. G., & Farahnak, L. R. (2014). The implementation leadership scale (ILS): Development of a brief measure of unit level implementation leadership. *Implementation Science, 9,* 45.

Aarons, G. A., Ehrhart, M. G., Torres, E. M., Finn, N. K., & Roesch, S. C. (2016). Validation of the Implementation Leadership Scale (ILS) in substance use disorder treatment organizations. *Journal of Substance Abuse Treatment, 68,* 31-35.

Ahmed, W., Minnaert, A., van der Werf, G., & Kuyper, H. (2010). Perceived social support and early adolescents' achievement: The mediational roles of motivational beliefs and emotions. *Journal of Youth and Adolescence*, *39*, 36-46.

Araya, R., Fritsch, R., Spears, M., Rojas, G., Martinez, V., Barroilhet, S., & Montgomery, A. (2013). School intervention to improve mental health of students in Santiago, Chile: a randomized clinical trial. *JAMA Pediatrics, 167*, 1004–1010.

Aronen, E. T., Teerikangas, O. M., & Kurkela, S. A. (1999). The continuity of psychiatric symptoms from adolescence into young adulthood. *Nordic Journal of Psychiatry*, *53*, 333-338.

Atkins, M. S., Frazier, S. L., Birman, D., Adil, J. A., Jackson, M., Graczyk, P. A., . . . McKay, M. M. (2006). School-based mental health services for children living in high-poverty urban communities. *Administration and Policy in Mental Health and Mental Health Services Research, 33,* 146–159.

Atkins, M. S., Frazier, S. L., Leathers, S. J., Graczyk, P. A., Talbott, E., Jakobsons, L., . . . Bell, C. C. (2008). Teacher key opinion leaders and mental health consultation in low-income urban schools. *Journal of Consulting and Clinical Psychology*, *76*, 905–908.

Azevedo, J. P., Hasan, A., Goldemberg, D., Iqbal, S. A., & Geven, K. (2020). *Simulating the potential impacts of COVID-19 school closures on schooling and learning outcomes: A set of global estimates*. World Bank. Downloaded from: https://elibrary.worldbank.org/doi/abs/10.1596/1813-9450-9284.

Bates, D., Mächler, M., Bolker, B., & Walker, S. (2014). Fitting linear mixed-effects models using lme4. *arXiv preprint arXiv:1406.5823*.

Beebe, J. (2001). *Rapid assessment process: An introduction*. Rowman Altamira.

Benner, A. D., & Graham, S. (2011). Latino adolescents' experiences of discrimination across the first 2 years of high school: Correlates and influences on educational outcomes. *Child Development*, *82*, 508-519.

Borman, G. D., & Overman, L. T. (2004). Academic resilience in mathematics among poor and minority students. *The Elementary School Journal*, *104*, 177-195.

Brondolo, E., Blair, I. V., & Kaur, A. (2018). *Biopsychosocial mechanisms linking discrimination to health: A focus on social cognition.* In B. Major, J. F. Dovidio, & B. G. Link (Eds.), *Oxford library of psychology. The Oxford handbook of stigma, discrimination, and health* (p. 219–240). Oxford University Press.

Brondolo, E., Gallo, L. C., & Myers, H. F. (2009). Race, racism and health: disparities, mechanisms, and interventions. *Journal of Behavioral Medicine*, *32*, 1-8.

Burke, T., Sticca, F., & Perren, S. (2017). Everything's gonna be alright! The longitudinal interplay among social support, peer victimization, and depressive symptoms. *Journal of Youth and Adolescence*, *46*, 1999-2014.

Byrne, B. M. (1993). The Maslach Burnout Inventory: Testing for factorial validity and invariance across elementary, intermediate and secondary teachers. *Journal of Occupational and organizational Psychology, 66*(3), 197-212.

Cao, L., & Ramesh, B. (2008). Agile requirements engineering practices: An empirical study. *IEEE software*, *25*(1), 60-67.

Cash, S. J., & Bridge, J. A. (2009). Epidemiology of youth suicide and suicidal behavior. *Current Opinion in Pediatrics*, *21*, 613-619.

Challen, A. R., Machin, S. J., & Gillham, J. E. (2014). The UK resilience programme: a school-based universal nonrandomized pragmatic controlled trial. *Journal of Consulting and Clinical Psychology, 82*, 75–89.

Chu, P. S., Saucier, D. A., & Hafner, E. (2010). Meta-analysis of the relationships between social support and well-being in children and adolescents. *Journal of Social and Clinical Psychology*, *29*, 624-645.

Cohen, J. (1988). *Statistical power analysis for the social sciences* (2nd ed.). Hillsdale, NJ: Lawrence Erlbaum Associates.

Cohen, E. G., & Lotan, R. A. (1995). Producing equal-status interaction in the heterogeneous classroom. *American Educational Research Journal*, *32*, 99-120.

Cohen, G. L., & Sherman, D. K. (2014). The psychology of change: Self-affirmation and social psychological intervention. *Annual review of psychology*, *65*, 333-371.

Cohen, S., Kamarck, T., & Mermelstein, R. (1983). A global measure of perceived stress. *Journal of health and social behavior, 24,* 385-396.

Cook, T. D., Campbell, D. T., & Shadish, W. (2002). *Experimental and quasi-experimental designs for generalized causal inference*. Boston, MA: Houghton Mifflin.

Crowder, M. K., Gordon, R. A., Brown, R. D., Davidson, L. A., & Domitrovich, C. E. (2019). Linking social and emotional learning standards to the WCSD Social–Emotional Competency Assessment: A Rasch approach. *School Psychology*, *34*(3), 281.

Crutchfield, J., Phillippo, K. L., & Frey, A. (2020). Structural racism in schools: A view through the lens of the national school social work practice model. *Children & Schools*, *42*(3), 187-193.

Cunningham, M., & Swanson, D. P. (2010). Educational resilience in African American adolescents. *The Journal of Negro Education*, 473-487.

Curran, G. M., Bauer, M., Mittman, B., Pyne, J. M., & Stetler, C. (2012). Effectiveness-implementation hybrid designs: combining elements of clinical effectiveness and implementation research to enhance public health impact. *Medical care*, *50*(3), 217.

de Mooij, B., Fekkes, M., Scholte, R. H., & Overbeek, G. (2020). Effective components of social skills training programs for children and adolescents in nonclinical samples: A multilevel meta-analysis. *Clinical Child and Family Psychology Review*, *23*(2), 250-264.

Deutsch, M. (1949). A theory of cooperation and competition. *Human Relations, 2,* 129–151.

Deutsch, M. (1962). Cooperation and trust: Some theoretical notes. In M. Jones (Ed.), *Nebraska symposium on motivation* (pp. 275–319). Lincoln, NE: University of Nebraska Press.

Donnelly, R., & Patrinos, H. A. (2021). Learning loss during Covid-19: An early systematic review. *Prospects*, 1-9.

Dorn, E., Hancock, B., Sarakatsannis, J., & Viruleg, E. (2020). *COVID-19 and student learning in the United States: The hurt could last a lifetime*. McKinsey & Company. Retrieved from: https://www.mckinsey.com/industries/public-sector/our-insights/covid-19-andstudent-learning-in-the-united-states-the-hurt-could-last-a-lifetime.

Doyle, D. M., & Molix, L. (2014). Perceived discrimination as a stressor for close relationships: Identifying psychological and physiological pathways. *Journal of Behavioral Medicine*, *37*, 1134-1144.

Duffin, L. C., French, B. F., & Patrick, H. (2012). The Teachers' Sense of Efficacy Scale: Confirming the factor structure with beginning pre-service teachers. *Teaching and Teacher Education, 28*(6), 827-834.

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.

Elias, M. J., & Haynes, N. M. (2008). Social competence, social support, and academic achievement in minority, low-income, urban elementary school children. *School Psychology Quarterly*, *23*, 474-495.

Espelage, D. L., & Holt, M. K. (2001). Bullying and victimization during early adolescence: Peer influences and psychosocial correlates. *Journal of Emotional Abuse, 2,* 123-142.

Fang, G., Chan, P. W. K., & Kalogeropoulos, P. (2020). Social Support and Academic Achievement of Chinese Low-Income Children: A Mediation Effect of Academic Resilience. *International Journal of Psychological Research*, *13*, 19-28.

Fergusson, D. M., Horwood, L. J., Ridder, E. M., & Beautrais, A. L. (2005). Subthreshold depression in adolescence and mental health outcomes in adulthood. *Archives of General Psychiatry*, *62*(1), 66-72.

Fisher, C. B., Wallace, S. A., & Fenton, R. E. (2000). Discrimination distress during adolescence. *Journal of Youth and Adolescence*, *29*, 679-695.

Fitzpatrick, K. M., Harris, C., & Drawve, G. (2020). Living in the midst of fear: Depressive symptomatology among US adults during the COVID-19 pandemic. *Depression and Anxiety*, *37*(10), 957-964.

Fortuna, L. R., Tolou-Shams, M., Robles-Ramamurthy, B., & Porche, M. V. (2020). Inequity and the disproportionate impact of COVID-19 on communities of color in the United States: The need for a trauma-informed social justice response. *Psychological Trauma: Theory, Research, Practice, and Policy*, *12*(5), 443.

Furrer, C., & Skinner, E. (2003). Sense of relatedness as a factor in children's academic engagement and performance. *Journal of Educational Psychology*, *95*, 148-162.

Gardner, W., Mulvey, E. P., & Shaw, E. C. (1995). Regression analyses of counts and rates: Poisson, overdispersed Poisson, and negative binomial models. *Psychological Bulletin*, *118*, 392-404.

Gaylord-Harden, N. K., & Cunningham, J. A. (2009). The impact of racial discrimination and coping strategies on internalizing symptoms in African American youth. *Journal of Youth and Adolescence*, *38*(4), 532-543.

Gelman, A., Carlin, J. B., Stern, H. S., Dunson, D., Vehtari, A., & Rubin, D. B. (2014). *Bayesian data analysis*, (3rd ed.). Boca Raton: CRC press.

Greenberger, E., Chen, C., Tally, S. R., & Dong, Q. (2000). Family, peer, and individual correlates of depressive symptomatology among U.S. and Chinese adolescents. *Journal of Consulting and Clinical Psychology, 68*, 209-219.

Grund, S., Lüdtke, O., & Robitzsch, A. (2021). Multiple imputation of missing data in multilevel models with the R package mdmb: a flexible sequential modeling approach. *Behavior Research Methods*, *53*, 2631-2649.

Hankin, B. L., Young, J. F., Abela, J. R. Z., Smolen, A., Jenness, J. L., Gulley, L. D., . . . Oppenheimer, C. W. (2015). Depression from childhood into late adolescence: Influence of gender, development, genetic susceptibility, and peer stress. *Journal of Abnormal Psychology, 124*, 803-816.

Hargrove, T. W., Halpern, C. T., Gaydosh, L., Hussey, J. M., Whitsel, E. A., Dole, N., ... & Harris, K. M. (2020). Race/ethnicity, gender, and trajectories of depressive symptoms across early-and mid-life among the add health cohort. *Journal of racial and ethnic health disparities*, *7*(4), 619-629.

Hatzenbuehler, M. L., Nolen-Hoeksema, S., & Dovidio, J. (2009). How does stigma "get under the skin"? The mediating role of emotion regulation. *Psychological Science*, *20*, 1282-1289.

Heneman III, H. G., Kimball, S., & Milanowski, A. (2006). *The Teacher Sense of Efficacy Scale: Validation Evidence and Behavioral Prediction*. WCER Working Paper No. 2006-7. Wisconsin Center for Education Research (NJ1).

Hershberger, M. A., & Jones, M. H. (2018). The influence of social relationships and school engagement on academic achievement in maltreated adolescents. *Journal of adolescence*, *67*, 98-108.

Hollands, F. M., Pratt-Williams, J., & Shand, R. (2021). *Cost analysis standards and guidelines 1.1.* Cost Analysis in Practice (CAP) Project.

Hughes, C. W., & Melson, A. G. (2008). *Child and adolescent measures for diagnosis and screening.* In A. J. Rush, Jr., M. B. First, & D. Blacker (Eds.), *Handbook of psychiatric measures* (p. 251–308). American Psychiatric Publishing, Inc.

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.

Huynh, V. W., & Fuligni, A. J. (2010). Discrimination hurts: The academic, psychological, and physical well-being of adolescents. *Journal of Research on Adolescence*, *20*, 916-941.

Johnson, D., Dupuis, G., Piche, J., Clayborne, Z., & Colman, I. (2018). Adult mental health outcomes of adolescent depression: A systematic review. *Depression and anxiety*, *35*(8), 700-716.

Johnson, D. W., & Johnson, R. T. (1983). Social interdependence and perceived academic and personal support in the classroom. *The Journal of Social Psychology*, *120*(1), 77-82.

Johnson, D. W., & Johnson, R. T. (1989). *Cooperation and competition: Theory and research*. Interaction Book Company.

Johnson, D. W., & Johnson, R. T. (1999). Making cooperative learning work. *Theory into Practice*, *38*, 67-73.

Johnson, D. W., & Johnson, R. T. (2000). The three Cs of reducing prejudice and discrimination. In S. Oskamp (Ed.), *Reducing prejudice and discrimination* (pp. 239–268). Erlbaum.

Johnson, D. W., & Johnson, R. T. (2005). New developments in social interdependence theory. *Psychology Monographs, 131,* 285–358.

Johnson, D. W., Johnson, R. T., Roseth, C. J., & Shin, T-S. (2014). The relationship between motivation and achievement in interdependent situations. *Journal of Applied Social Psychology, 44,* 622-633.

Johnson, D. W., Johnson, R. T., Tiffany, M., & Zaidman, B. (1984). Cross-ethnic relationships: The impact of intergroup cooperation and intergroup competition. *The Journal of Educational Research*, *78*, 75-79.

Johnson, J. G., Harris, E. S., Spitzer, R. L., & Williams, J. B. (2002). The patient health questionnaire for adolescents: validation of an instrument for the assessment of mental disorders among adolescent primary care patients. *Journal of Adolescent Health*, *30*, 196-204.

Jolliffe, D., & Farrington, D. P. (2006). Development and validation of the Basic Empathy Scale. *Journal of Adolescence*, *29*(4), 589-611.

Judd, C. M., Kenny, D. A., & McClelland, G. H. (2001). Estimating and testing mediation and moderation in within-subject designs. *Psychological Methods*, *6*(2), 115.

Kaplan, D. S., Liu, R. X., & Kaplan, H. B. (2005). School related stress in early adolescence and academic performance three years later: The conditional influence of self-expectations. *Social Psychology of Education*, *8*(1), 3-17.

Kawabata, Y., & Crick, N. R. (2015). Direct and interactive links between cross-ethnic friendships and peer rejection, internalizing symptoms, and academic engagement among ethnically diverse children. *Cultural Diversity and Ethnic Minority Psychology*, *21*, 191-200.

Kiesner, J. (2002). Depressive symptoms in early adolescence: Their relations with classroom problem behavior and peer status. *Journal of Research on Adolescence*, *12*, 463-478.

Kim, Y. S., & Leventhal, B. (2008). Bullying and suicide. A review. *International Journal of Adolescent Medical Health*, *20*(2), 133-154.

Klomek, A. B., Marrocco, F., Kleinman, M., Schonfeld, I. S., & Gould, M. S. (2007). Bullying, depression, and suicidality in adolescents. *Journal of the American Academy of Child & Adolescent Psychiatry*, *46*(1), 40-49.

Klomek, A. B., Sourander, A., & Gould, M. S. (2011). Bullying and suicide. *Psychiatric Times*, *28*(2), 27-31.

Larson, M., Cook, C. R., Brewer, S. K., Pullmann, M. D., Hamlin, C., Merle, J. L., ... & Lyon, A. R. (2021). Examining the effects of a brief, group-based motivational implementation strategy on mechanisms of teacher behavior change. *Prevention Science*, *22*(6), 722-736.

Lee, E. H. (2012). Review of the psychometric evidence of the perceived stress scale. *Asian nursing research, 6*(4), 121-127.

Levin, H. M., & McEwan, P. J. (2002). *Cost-effectiveness and educational policy*. Larchmont, NJ: Eye on Education.

Levin, H. M., McEwan, P. J., Belfield, C., Bowden, A. B., & Shand, R. (2017). *Economic evaluation in education: Cost-effectiveness and benefit-cost analysis*. SAGE publications.

Levy, D. J., Heissel, J. A., Richeson, J. A., & Adam, E. K. (2016). Psychological and biological responses to race-based social stress as pathways to disparities in educational outcomes. *American Psychologist*, *71*(6), 455-473.

Loades, M. E., Chatburn, E., Higson-Sweeney, N., Reynolds, S., Shafran, R., Brigden, A., Linney, C., McManus, M. N., Borwick, C., & Crawley, E. (2020). Rapid Systematic Review: The impact of social isolation and loneliness on the mental health of children and adolescents in the context of COVID-19. *Journal of the American Academy of Child & Adolescent Psychiatry, 59I* 1218-1239.e3.

Lopez-Nores, M., Pazos-Arias, J. J., Garcia-Duque, J., Blanco-Fernandez, Y., Diaz-Redondo, R. P., Fernandez-Vilas, A., ... & Ramos-Cabrer, M. (2009). Procedures and algorithms for continuous integration in an agile specification environment. *International Journal of Software Engineering and Knowledge Engineering*, *19*(01), 47-78.

Low, S., Smolkowski, K., Cook, C., & Desfosses, D. (2019). Two-year impact of a universal social-emotional learning curriculum: Group differences from developmentally sensitive trends over time. *Developmental Psychology*, *55*, 415-433.

Low, S., & Van Ryzin, M. (2014). The moderating effects of school climate on bullying prevention efforts. *School Psychology Quarterly*, *29*(3), 306-319.

Lubbers, M. J., Van Der Werf, M. P., Snijders, T. A., Creemers, B. P., & Kuyper, H. (2006). The impact of peer relations on academic progress in junior high. *Journal of school psychology*, *44*(6), 491-512.

Luke DA, Calhoun A, Robichaux CB, Elliott MB, Moreland-Russell S (2014). The Program Sustainability Assessment Tool: A new instrument for public health programs. *Preventing Chronic Disease*, 11, E12.

MacKinnon, D. P. (2008). *Introduction to statistical mediation analysis.* New York, NY: Routledge.

Mahoney, J. L., Weissberg, R. P., Greenberg, M. T., Dusenbury, L., Jagers, R. J., Niemi, K., ... & Yoder, N. (2020). Systemic social and emotional learning: Promoting educational success for all preschool to high school students. *American Psychologist*.

Malecki, C. K., & Demaray, M. K. (2006). Social support as a buffer in the relationship between socioeconomic status and academic performance. *School Psychology Quarterly*, *21*, 375-395.

Martens, B. K., Witt, J. C, Elliott, S. N., & Darveaux, D. X. (1985). Teacher judgements concerning the acceptability of school-based interventions. *Professional Psychology, 16,* 191- 198.

Martin, R.A. , Kazarian, S.A. , & Breiter, H.J. (1995). Perceived stress, life events, dysfunctional attitudes, and depression in adolescent psychiatric inpatients. *Journal of Psychopathology and Behavioral Assessment, 17*(1), 81-95.

Maslach, C., Jackson, S. E., & Schwab, R. L. (1996). Maslach burnout inventory-educators survey (MBI-ES). *MBI manual*, *3*, 27-32.

Mays, V. M., Cochran, S. D., & Barnes, N. W. (2007). Race, race-based discrimination, and health outcomes among African Americans. *Annual Review of Psychology*, *58*, 201-225.

McFarland, J., Cui, J., Rathbun, A., and Holmes, J. (2018). *Trends in high school dropout and completion rates in the United States* (NCES 2019-117). U.S. Department of Education. Washington, DC: National Center for Education Statistics. Retrieved from http://nces.ed.gov/pubsearch

Merry, S. N., Hetrick, S. E., Cox, G. R., Brudevold-Iversen, T., Bir, J. J., & McDowell, H. (2012). Cochrane Review: Psychological and educational interventions for preventing depression in children and adolescents. *Evidence-Based Child Health: A Cochrane Review Journal*, *7*(5), 1409-1685.

Mikami, A. Y., Boucher, M. A., & Humphreys, K. (2005). Prevention of peer rejection through a classroom-level intervention in middle school. *Journal of Primary Prevention*, *26*(1), 5-23.

Moore, R. T., & Schnakenberg, K. (2012). blockTools: Blocking, assignment, and diagnosing interference in randomized experiments. *Version 0.5-6, August*.

Mossman, S. A., Luft, M. J., Schroeder, H. K., Varney, S. T., Fleck, D. E., Barzman, D. H., ... & Strawn, J. R. (2017). The generalized anxiety disorder 7-item (GAD-7) scale in adolescents with generalized anxiety disorder: Signal detection and validation. *Annals of clinical psychiatry: official journal of the American Academy of Clinical Psychiatrists*, *29*(4), 227.

Moullin, J. C., Dickson, K. S., Stadnick, N. A., Rabin, B., & Aarons, G. A. (2019). Systematic review of the exploration, preparation, implementation, sustainment (EPIS) framework. *Implementation Science*, *14*, 1-16.

Murray, D. M. (1998). *Design and analysis of group-randomized trials*. New York, NY: Oxford University Press.

Murray, D. M. (2001). Statistical models appropriate for designs often used in group randomized trials. *Statistics in Medicine, 20,* 1373–1385.

Muthén, L. K., & Muthén, B. O. (1998-2017). *MPlus: Statistical Analysis with Latent Variables User's Guide* (8th ed.). Los Angeles, CA: StatModel.

Neblett Jr, E. W., Philip, C. L., Cogburn, C. D., & Sellers, R. M. (2006). African American adolescents' discrimination experiences and academic achievement: Racial socialization as a cultural compensatory and protective factor. *Journal of Black Psychology*, *32*, 199-218.

Nielsen, M. G., Ørnbøl, E., Vestergaard, M., Bech, P., Larsen, F. B., Lasgaard, M., & Christensen, K. S. (2016). The construct validity of the Perceived Stress Scale. *Journal of psychosomatic research, 84,* 22-30.

Padgett, D. K. (2008). Strategies for rigor. *Qualitative Methods in Social Work Research, 2nd ed. Thousand Oaks, CA: Sage Publications Inc*, 179-198.

Perez, W., Espinoza, R., Ramos, K., Coronado, H. M., & Cortes, R. (2009). Academic resilience among undocumented Latino students. *Hispanic Journal of Behavioral Sciences*, *31*, 149-181.

Pettigrew, T. F. (1998). Intergroup contact theory. *Annual Review of Psychology, 49,* 65-85.

Pettigrew, T. F., & Tropp, L. R. (2006). A meta-analytic test of intergroup contact theory. *Journal of Personality and Social Psychology*, *90,* 751-783.

Pianta, R. C., Mashburn, A. J., Downer, J. T., Hamre, B. K., & Justice, L. (2008). Effects of web-mediated professional development resources on teacher–child interactions in pre-kindergarten classrooms. *Early childhood research quarterly*, *23*(4), 431-451.

Pössel, P., Martin, N. C., Garber, J., & Hautzinger, M. (2013). A randomized controlled trial of a cognitive-behavioral program for the prevention of depression in adolescents compared with nonspecific and no-intervention control conditions. *Journal of Counseling Psychology, 60*, 432–438.

Pressley, T. (2021). Factors contributing to teacher burnout during COVID-19. *Educational Researcher, 50*(5), 325-327.

Pressley, T., & Ha, C. (2021). Teaching during a pandemic: United States teachers' self-efficacy during COVID-19. *Teaching and Teacher Education, 106*, 103465.

Prinstein, M. J., & Aikins, J. W. (2004). Cognitive moderators of the longitudinal association between peer rejection and adolescent depressive symptoms. *Journal of abnormal child psychology*, *32*, 147-158.

Raudenbush, S. W., & Bryk, A. S. (2002). *Hierarchical linear models: Applications and data analysis methods*. Thousand Oaks, CA: Sage.

Raufelder, D., Kittler, F., Braun, S. R., Lätsch, A., Wilkinson, R. P., & Hoferichter, F. (2014). The interplay of perceived stress, self-determination and school engagement in adolescence. *School Psychology International*, *35*, 405-420.

Roseth, C. J., Johnson, D. W., & Johnson, R. T. (2008). Promoting early adolescents' achievement and peer relationships: The effects of cooperative, competitive, and individualistic goal structures. *Psychological Bulletin*, *134*, 223-246.

Rosseel, Y. (2012). lavaan: An R package for structural equation modeling. *Journal of statistical software*, *48*, 1-36.

Rothstein, R. (2015). The racial achievement gap, segregated schools, and segregated neighborhoods: A constitutional insult. *Race and social problems*, *7*(1), 21-30.

Rudolph, K. D. (2002). Gender differences in emotional responses to interpersonal stress during adolescence. *Journal of Adolescent Health, 30*, 3-13.

Rudolph, K. D., Lambert, S. F., Clark, A. G., & Kurlakowsky, K. D. (2001). Negotiating the transition to middle school: The role of self-regulatory processes. *Child Development*, *72*(3), 929-946.

Saldaña, J. (2016). Goodall's verbal exchange coding: An overview and example. *Qualitative Inquiry*, *22*, 36-39.

Saluja, G., Iachan, R., Scheidt, P. C., Overpeck, M. D., Sun, W., & Giedd, J. N. (2004). Prevalence of and risk factors for depressive symptoms among young adolescents. *Archives of pediatrics & adolescent medicine*, *158*(8), 760-765.

Sawyer, M. G., Harchak, T. F., Spence, S. H., Bond, L., Graetz, B., Kay, D., & Sheffield, J. (2010). School-based prevention of depression: a 2-year follow-up of a randomized

controlled trial of the beyond blue schools research initiative. *Journal of Adolescent Health, 47*, 297–304.

Schaufeli, W. B., Bakker, A. B., Hoogduin, K., Schaap, C., & Kladler, A. (2001). On the clinical validity of the Maslach Burnout Inventory and the Burnout Measure. *Psychology & Health, 16*(5), 565-582.

Sirin, S. R., Rogers-Sirin, L., Cressen, J., Gupta, T., Ahmed, S. F., & Novoa, A. D. (2015). Discrimination-related stress effects on the development of internalizing symptoms among Latino adolescents. *Child Development*, *86*(3), 709-725.

Skinner, E. A., Kindermann, T. A., & Furrer, C. J. (2009). A motivational perspective on engagement and disaffection: Conceptualization and assessment of children's behavioral and emotional participation in academic activities in the classroom. *Educational and Psychological Measurement, 69*, 493–525.

Skinner, E. A., Marchand, G., Furrer, C., & Kindermann, T. (2008). Engagement and disaffection in the classroom: Part of a larger motivational dynamic. *Journal of Educational Psychology, 100*, 765–781.

Slavin, R. E. (2001). Cooperative learning and intergroup relations. In J. A. Banks & C. A. M. Banks (Eds.), *Handbook of research on multicultural education* (pp. 628–634). San Francisco: JosseyBass.

Slavin, R. E., & Cooper, R. (1999). Improving intergroup relations: Lessons learned from cooperative learning programs. *Journal of Social Issues*, *55*, 647-663.

Smalls, C., White, R., Chavous, T., & Sellers, R. (2007). Racial ideological beliefs and racial discrimination experiences as predictors of academic engagement among African American adolescents. *Journal of Black Psychology*, *33*, 299-330.

Spitzer, R. L., Kroenke, K., Williams, J. B., & Löwe, B. (2006). A brief measure for assessing generalized anxiety disorder: the GAD-7. *Archives of Internal Medicine*, *166*, 1092-1097.

Stallard, P., Sayal, K., Phillips, R., Taylor, J. A., Spears, M., Anderson, R., & Montgomery, A. A. (2012). Classroom based cognitive behavioural therapy in reducing symptoms of depression in high risk adolescents: Pragmatic cluster randomised controlled trial. *British Medical Journal, 345*.

Steinberg, L., & Morris, A. S. (2001). Adolescent development. *Journal of Cognitive Education and Psychology*, *2*(1), 55-87.

Stewart, D., & Sun, J. (2004). How can we build resilience in primary school aged children? The importance of social support from adults and peers in family, school and community settings. *Asia Pacific Journal of Public Health*, *16*(1_suppl), 37-41.

Streiner, D. L. (2016). Statistics Commentary Series: Commentary# 13—Controlling for Baseline Differences. *Journal of Clinical Psychopharmacology*, *36*, 112-114.

Tak, Y. R., Lichtwarck-Aschoff, A., Gillham, J. E., Van Zundert, R. M., & Engels, R. C. (2016). Universal school-based depression prevention 'Op Volle Kracht': A longitudinal cluster randomized controlled trial. *Journal of Abnormal Child Psychology*, *44*, 949-961.

Tram, J. M., & Cole, D. A. (2000). Self-perceived competence and the relation between life events and depressive symptoms in adolescence: Mediator or moderator? *Journal of Abnormal Psychology, 109*, 753-760.

Tschannen-Moran, M., & Hoy, A. W. (2001). Teacher efficacy: Capturing an elusive construct. *Teaching and Teacher Education*, *17*(7), 783-805.

Umaña-Taylor, A. J., Vargas-Chanes, D., Garcia, C. D., & Gonzales-Backen, M. (2008). A longitudinal examination of Latino adolescents' ethnic identity, coping with discrimination, and self-esteem. *The Journal of Early Adolescence*, *28*, 16-50.

Van der Wal, M. F., de Wit, C. A. M., & Hirasing, R. A. (2003). Psychosocial health among young victims and offenders of direct and indirect bullying. *Pediatrics*, *111*, 1312-1317.

Van Ryzin, M. J. & Roseth, C. J. (2018). Cooperative learning in middle school: A means to improve peer relations and reduce victimization, bullying, and related outcomes. *Journal of Educational Psychology, 110,* 1192-1201.

Van Ryzin, M. J. & Roseth, C. J. (2019). Effects of cooperative learning on peer relations, empathy, and bullying in middle school. *Aggressive Behavior, 45,* 643-651.

Van Ryzin, M. J., & Roseth, C. J. (2021). The cascading effects of reducing student stress: Cooperative learning as a means to reduce emotional problems and promote academic engagement. *The Journal of Early Adolescence*, *41*(5), 700-724.

Van Ryzin, M. J., Roseth, C. J., & McClure, H. (2020). The effects of cooperative learning on peer relations, academic support, and engagement in learning among students of color. *The Journal of educational research*, *113*(4), 283-291.

Van Ryzin, M. J., Roseth, C. J., & Murray, C. (2022). The effects of cooperative learning on peer relations, academic support, and engagement in learning among students with disabilities. *Manuscript under review*.

Vargas Rubilar, N., & Oros, L. B. (2021). Stress and burnout in teachers during times of pandemic. *Frontiers in psychology, 12,* 756007.

Veenman, S., Kenter, B., & Post, K. (2000). Cooperative learning in Dutch primary schools. *Educational Studies, 26,* 281–302.

Veenman, S., van Benthum, N., Bootsma, D., van Dieren, J., & van der Kemp, N. (2002). Cooperative learning and teacher education. *Teaching and Teacher Education, 18,* 87–103.

Wenz-Gross, M., Siperstein, G. N., Untch, A. S., & Widaman, K. F. (1997). Stress, social support, and adjustment of adolescents in middle school. *The Journal of Early Adolescence*, *17*, 129-151.

Wei, Y., Kutcher, S., & LeBlanc, J. C. (2015). Hot idea or hot air: A systematic review of evidence for two widely marketed youth suicide prevention programs and recommendations for implementation. *Journal of the Canadian Academy of Child and Adolescent Psychiatry*, *24*(1), 5.

Weigel, R. H., Wiser, P. L., & Cook, S. W. (1975). The impact of cooperative learning experiences on cross-ethnic relations and attitudes. *Journal of Social Issues*, *31*, 219-244.

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*(3), 778-808.

Wentzel, K. R. (2005). Peer relationships, motivation, and academic performance at school. In A. Elliot & C. Dweck (Eds.), *Handbook of competence and motivation* (pp. 279–296). New York, NY: Guilford.

What Works Clearinghouse (2020). What Works Clearinghouse standards handbook, version 4.1. *National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, US Department of Education.* Downloaded from: https://ies.ed.gov/ncee/wwc/handbooks.

Wilson, T. M., & Rodkin, P. C. (2013). Children's cross-ethnic relationships in elementary schools: Concurrent and prospective associations between ethnic segregation and social status. *Child Development*, *84*, 1081-1097.

Yeager, D. S. (2017). Social and emotional learning programs for adolescents. *The Future of Children*, *27*(1), 73-94.

Ying, Y. W., & Han, M. (2007). The effect of intergenerational conflict and school-based racial discrimination on depression and academic achievement in Filipino American adolescents. *Journal of Immigrant & Refugee Studies*, *4*, 19-35.

Zhang, B., Yan, X., Zhao, F., & Yuan, F. (2015). The relationship between perceived stress and adolescent depression: The roles of social support and gender. *Social Indicators Research*, *123*, 501-518.