

## Registry of Efficacy and Effectiveness Studies

### Study Title:

Effectiveness of the Social Skills Improvement System - SEL Edition Classwide Intervention Program (SSIS-CIP SEL) in the Primary Grades

**Registry ID: 1833.1v1**

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### Version History

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### Section I: General Study Information

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2017-12-11

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**Study Start Date:**

2018-07-01

**Study End Date:**

2022-06-30

**Intervention Start Date:**

2018-01-03

**Timing of entry:**

Prior to analysis of outcome data

**Brief Abstract:**

The purpose of this project is to test the effectiveness of the Social Skills Improvement System - SEL Edition Classwide Intervention Program (SSIS-CIP SEL; Elliott & Gresham, 2017) in helping young students (Grades 1-2) develop prosocial and learning behaviors that elementary teachers have identified as critical to classroom success. Results of a completed IES-funded efficacy trial (R305A090438) indicated that the SSIS-CIP improves first and second grade students' prosocial skills (e.g., cooperation, responsibility, empathy), academic motivation, and engagement compared to students in a business-as-usual control group. The current project builds on this prior research by conducting an independent evaluation of the SSIS-CIP SEL's effectiveness when implemented by elementary teachers under routine classroom conditions in schools that have been considering adoption of universal classroom programs to promote students' social emotional learning.

**Keywords:**

Social-emotional learning, SSIS-CIP, prosocial skills, effectiveness, implementation

**Comments:**

This study is a 4-year trial, with data collected during the school year from Fall 2018-Spring 2022. The trial registry will be updated as recruitment, data collection, and analysis are completed.

*Section II starts on the next page.*

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## **Section II: Description of Study**

### **Type of Intervention:**

Curriculum/Product

### **Topic Area of Intervention:**

Social and Behavioral Context for Academic Learning

### **Number of intervention arms:**

1

### **Target school level:**

1, 2

### **Target school type:**

Rural, Suburban, Urban

### **Location of Implementation:**

United States

### **Further description of location:**

Participating districts (as of 9/2019) are located in 4 states (MN, NC, IN, NJ).

### **Brief Description of Intervention Condition:**

First- and second-grade teachers in intervention condition classrooms will implement the Social Skills Improvement System - SEL Edition Classwide Intervention Program (SSIS-CIP SEL). The SSIS-CIP SEL is a structured curriculum intended for delivery by classroom teachers and consisting of 10 "core" skill units covering the following skills: Self-Awareness, Self Management, Social Awareness, Relationship Skills, and Responsible Decision Making. In addition, 11 "advanced" units are intended for supplemental practice of these skills. Each unit includes scripted teacher lesson plans, video vignettes, student workbook activities, progress monitoring tools, and information for parents. It is intended for off-the-shelf use.

### **Brief Description of Comparison Condition:**

Classrooms randomly assigned to the control condition will continue with their typical practices and participate in data collection.

### **Comparison condition:**

Business-as-usual

### **Comments:**

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## **Section III: Research Questions**

### **Confirmatory research questions:**

#### **Question 1:**

Do children in classrooms implementing the SSIS-CIP program under routine conditions demonstrate higher rates of prosocial behaviors at posttest compared to children in non-implementing (business-as-usual) classrooms?

**Question 2:**

Do children in classrooms implementing the SSIS-CIP under routine conditions demonstrate lower rates of negative social behaviors (e.g., shyness, withdrawal) at posttest compared to children in non-implementing classrooms?

**Question 3:**

Are significant differences in social behaviors between children exposed to the SSIS-CIP program under routine conditions and those not exposed to the program maintained at the end of the school year?

**Question 4:**

Are social behavior effects (posttest or end of year) from exposure to the SSIS-CIP under routine conditions stronger for students with lower initial levels of skill?

**Question 5:**

Do children in classrooms implementing the SSIS-CIP program under routine conditions demonstrate higher rates of academic motivation at posttest compared to children in non-implementing classrooms?

**Question 6:**

Do children in classrooms implementing the SSIS-CIP program under routine conditions demonstrate higher rates of engaged time at posttest during academic instruction compared to children in non-implementing classrooms?

**Question 7:**

Are significant differences in academic motivation and/or engagement between children exposed to the SSIS-CIP program under routine conditions and those not exposed to the program maintained at the end of the school year?

**Question 8:**

Are academic motivation or engagement effects (posttest or end of year) resulting from exposure to the SSIS-CIP under routine conditions stronger for students with lower initial levels of motivation or engagement?

**Question 9:**

Do children in classrooms implementing the SSIS-CIP program under routine conditions demonstrate greater reading skill proficiency at posttest than children in non-implementing (business-as-usual) classrooms?

**Question 10:**

Do children in classrooms implementing the SSIS-CIP program under routine conditions demonstrate greater mathematic skill proficiency at posttest than children in non-implementing classrooms?

**Question 11:**

Are significant differences in academic skills (reading and/or mathematics) between children exposed to the SSIS-CIP program under routine conditions and those not exposed to the program maintained at the end of the school year?

**Question 12:**

Are academic skill proficiency effects (posttest or end of year) resulting from exposure to the SSIS-CIP under routine conditions stronger for students receiving special education or supplemental services?

**Exploratory research questions:****Question 1:**

Does the magnitude of proximal, medial, and/or distal effects vary by grade level of SSIS-CIP implementation (first vs. second grade)?

**Question 2:**

What types of training and support do teachers receive under routine conditions?

**Question 3:**

Do teachers find the SSIS-CIP to be acceptable under routine implementation conditions and continue using it following participation in the effectiveness trial?

**Question 4:**

What are the actual costs of implementation of the SSIS-CIP under routine implementation conditions?

**Comments:**

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**Section IV-A: Study Design (Selection)****Study Design:**

Randomized Trial (RT)

**Comments:**

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**Section IV-B: Study Design (Input)*****Study Design: Input*****Unit of random assignment of intervention:**

School

**Assignment within sites or blocks:**

Yes

**Define the sites or blocks:**

District

**Probability of assignment to treatment the same across sites or blocks:**

Yes

**Probability of assignment to treatment:**

.5

**Unit outcome data measured:**

Student

**Intermediate clusters between unit of random assignment and unit of measurement:**

Yes

**Description of intermediate clusters:**

Teachers

**Comments:**

Schools are randomized to either (a) intervention in first grade; control in second grade; or (b) control in first grade;

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intervention in second grade. This change (from class-level randomization within grade) was implemented based on feedback from school administrators during initial recruitment of Year 1 sites that consistent, within-grade level planning was an important typical school practice.

### ***Design Classification***

**Based on the responses above, this study has been classified as:**

RT: Multisite (Blocked) Cluster Randomized Trial

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## **Section V: Sample Characteristics**

**Approximate number of students per intermediate cluster (Teachers):** 10

**Approximate number of intermediate clusters (Teachers) per school:** 6

**Approximate number of schools in the comparison condition within each district:** 2

**Approximate number of schools in the intervention condition within each district:** 2

**Number of districts:** 10

No Yes - The exclusionary criteria are limited to circumstances that make it impossible for a child to participate in the study. Examples of such circumstances would be a child with a severe disability that precludes their capacity to be involved given the data collection procedures or a child who does not have basic conversational skills in English and cannot provide informed assent. No No Yes - The primary goal for the project is to test the effectiveness of the SSIS-CIP under routine conditions in elementary schools that reflect the population of those most likely to adopt a universal program such as the SSIS-CIP. To that end, our recruitment targets districts that express interest in adopting a social-emotional learning program at the elementary level. Yes - Middle/secondary schools. Yes - Our recruitment targets districts that express interest in adopting a social-emotional learning program. No

**Comments:**

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## **Section VI: Outcomes (Input)**

### **Confirmatory question 1: Outcome Measure 1**

**Outcome domain:** Student Social, Emotional, & Behavior - Prosocial behavior

**Minimum detectable effect size:**  $d = .20, .25, .30, .35$

**Outcome measure:** Social Skills Improvement System Rating Scale

**Scale of outcome measure:** Continuous

**Normed or state test:** Yes

**Same outcome measure in treatment and comparison groups:** Yes

### **Confirmatory question 1: Outcome Measure 2**

**Outcome domain:** Student Social, Emotional, & Behavior - Prosocial behavior

**Minimum detectable effect size:**  $d = .20, .25, .30, .35$

**Outcome measure:** Cooperative Learning Observation Code for Kids-Second Edition

**Scale of outcome measure:** Continuous

**Normed or state test:** No

**Test-retest reliability:** N/A

**Internal consistency:** N/A

**Inter-rater reliability:** .90

**Same outcome measure in treatment and comparison groups:** Yes

**Confirmatory question 2: Outcome Measure 1**

**Outcome domain:** Student Social, Emotional, & Behavior - Negative social behavior

**Minimum detectable effect size:**  $d = .20, .25, .30, .35$

**Outcome measure:** Social Skills Improvement System Rating Scale

**Scale of outcome measure:** Continuous

**Normed or state test:** Yes

**Same outcome measure in treatment and comparison groups:** Yes

**Confirmatory question 2: Outcome Measure 2**

**Outcome domain:** Student Social, Emotional, & Behavior - Negative social behavior

**Minimum detectable effect size:**  $d = .20, .25, .30, .35$

**Outcome measure:** Cooperative Learning Observation Code for Kids-Second Edition

**Scale of outcome measure:** Continuous

**Normed or state test:** No

**Test-retest reliability:** N/A

**Internal consistency:** N/A

**Inter-rater reliability:** .90

**Same outcome measure in treatment and comparison groups:** Yes

**Confirmatory question 3: Outcome Measure 1**

**Outcome domain:** Student Social, Emotional, & Behavior - Prosocial behavior

**Minimum detectable effect size:**  $d = .20, .25, .30, .35$

**Outcome measure:** Social Skills Improvement System Rating Scale

**Scale of outcome measure:** Continuous

**Normed or state test:** Yes

**Same outcome measure in treatment and comparison groups:** Yes

**Confirmatory question 3: Outcome Measure 2**

**Outcome domain:** Student Social, Emotional, & Behavior - Prosocial behavior

**Minimum detectable effect size:**  $d = .20, .25, .30, .35$

**Outcome measure:** Cooperative Learning Observation Code for Kids-Second Edition

**Scale of outcome measure:** Continuous

**Normed or state test:** No

**Test-retest reliability:** N/A

**Internal consistency:** N/A

**Inter-rater reliability:** .90

**Same outcome measure in treatment and comparison groups:**

**Confirmatory question 4: Outcome Measure 1**

**Outcome domain:** Student Social, Emotional, & Behavior - Prosocial behavior

**Minimum detectable effect size:**  $d = .20, .25, .30, .35$

**Outcome measure:** Social Skills Improvement System Rating Scale

**Scale of outcome measure:** Continuous

**Normed or state test:** Yes

**Same outcome measure in treatment and comparison groups:** Yes

**Confirmatory question 4: Outcome Measure 2**

**Outcome domain:** Student Social, Emotional, & Behavior - Prosocial behavior

**Minimum detectable effect size:**  $d = .20, .25, .30, .35$

**Outcome measure:** Cooperative Learning Observation Code for Kids-Second Edition

**Scale of outcome measure:** Continuous

**Normed or state test:** No

**Test-retest reliability:** .90

**Internal consistency:** N/A

**Inter-rater reliability:** .90

**Same outcome measure in treatment and comparison groups:**

**Confirmatory question 5: Outcome Measure 1**

**Outcome domain:** Student Social, Emotional, & Behavior - Academic motivation

**Minimum detectable effect size:**  $d = .20, .25, .30, .35$

**Outcome measure:** Academic Competence Evaluation Scales – Teacher Form

**Scale of outcome measure:** Continuous

**Normed or state test:** Yes

**Same outcome measure in treatment and comparison groups:** Yes

**Confirmatory question 6: Outcome Measure 1**

**Outcome domain:** Student Social, Emotional, & Behavior - Engaged time

**Minimum detectable effect size:**  $d = .20, .25, .30, .35$

**Outcome measure:** Cooperative Learning Observation Code for Kids-Second Edition

**Scale of outcome measure:** Continuous

**Normed or state test:** No

**Test-retest reliability:** N/A

**Internal consistency:** N/A

**Inter-rater reliability:** .90

**Same outcome measure in treatment and comparison groups:** Yes

**Confirmatory question 7: Outcome Measure 1**

**Outcome domain:** Student Social, Emotional, & Behavior - Academic motivation & engagement

**Minimum detectable effect size:**  $d = .20, .25, .30, .35$

**Outcome measure:** Academic Competence Evaluation Scales – Teacher Form (academic motivation)

**Scale of outcome measure:** Continuous

**Normed or state test:** Yes

**Same outcome measure in treatment and comparison groups:** Yes

**Confirmatory question 7: Outcome Measure 2**

**Outcome domain:** Student Social, Emotional, & Behavior - Academic motivation & engagement

**Minimum detectable effect size:**  $d = .20, .25, .30, .35$

**Outcome measure:** Cooperative Learning Observation Code for Kids-Second Edition (academic engagement)

**Scale of outcome measure:** Continuous

**Normed or state test:** No

**Test-retest reliability:** N/A

**Internal consistency:** N/A

**Inter-rater reliability:** .90

**Same outcome measure in treatment and comparison groups:** Yes

**Confirmatory question 8: Outcome Measure 1**

**Outcome domain:** Student Social, Emotional, & Behavior

**Minimum detectable effect size:**  $d = .20, .25, .30, .35$

**Outcome measure:** Academic Competence Evaluation Scales – Teacher Form (academic motivation)

**Scale of outcome measure:** Continuous

**Normed or state test:** Yes

**Same outcome measure in treatment and comparison groups:** Yes

**Confirmatory question 8: Outcome Measure 2**

**Outcome domain:** Student Social, Emotional, & Behavior

**Minimum detectable effect size:**  $d = .20, .25, .30, .35$

**Outcome measure:** Cooperative Learning Observation Code for Kids-Second Edition (academic engagement)

**Scale of outcome measure:** Continuous

**Normed or state test:** No

**Test-retest reliability:** N/A

**Internal consistency:** N/A

**Inter-rater reliability:** .90

**Same outcome measure in treatment and comparison groups:** Yes

**Confirmatory question 9: Outcome Measure 1**

**Outcome domain:** Student Achievement - Literacy

**Minimum detectable effect size:**  $d = .20, .25, .30, .35$

**Outcome measure:** STAR Early Literacy/Reading

**Scale of outcome measure:** Continuous

**Normed or state test:** Yes

**Same outcome measure in treatment and comparison groups:** Yes

**Confirmatory question 10: Outcome Measure 1**

**Outcome domain:** Student Achievement - Mathematics

**Minimum detectable effect size:**  $d = .20, .25, .30, .35$

**Outcome measure:** STAR Mathematics

**Scale of outcome measure:** Continuous

**Normed or state test:** Yes

**Same outcome measure in treatment and comparison groups:** Yes

**Confirmatory question 11: Outcome Measure 1**

**Outcome domain:** Student Achievement- Academic skills

**Minimum detectable effect size:**  $d = .20, .25, .30, .35$

**Outcome measure:** STAR Early Literacy/Reading

**Scale of outcome measure:** Continuous

**Normed or state test:** Yes

**Same outcome measure in treatment and comparison groups:** Yes

**Confirmatory question 11: Outcome Measure 2**

**Outcome domain:** Student Achievement- Academic skills

**Minimum detectable effect size:**  $d = .20, .25, .30, .35$

**Outcome measure:** STAR Mathematics

**Scale of outcome measure:** Continuous

**Normed or state test:** Yes

**Same outcome measure in treatment and comparison groups:** Yes

**Confirmatory question 12: Outcome Measure 1**

**Outcome domain:** Student Achievement- Academic skills

**Minimum detectable effect size:**  $d = .20, .25, .30, .35$

**Outcome measure:** STAR Early Literacy/Reading

**Scale of outcome measure:** Continuous

**Normed or state test:** Yes

**Same outcome measure in treatment and comparison groups:** Yes

**Confirmatory question 12: Outcome Measure 2**

**Outcome domain:** Student Achievement- Academic skills

**Minimum detectable effect size:**  $d = .20, .25, .30, .35$

**Outcome measure:** STAR Mathematics

**Scale of outcome measure:** Continuous

**Normed or state test:** Yes

**Same outcome measure in treatment and comparison groups:** Yes

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**Section VII: Analysis Plan**

**Baseline data collected prior to start of intervention:**

Yes

**Description of baseline data:**

Demographics; Student behavior (social skills, problem behavior, academic engagement, academic motivation); Student friendship interview; Classroom characteristics (practices, quality); Teacher survey (well-being, social-emotional learning beliefs)

**Covariates you plan to include in the model:**

English Language Learner Status, Gender, Grade, Receipt of supplemental services, Race, Special Education Status, Student Pretest

**Covariates you plan to include in the model:**

Aggregate of Baseline Scores, Aggregate classroom quality score

**Covariates you plan to include in the model:**

**Analytic model:**

Please see supplemental materials.

**Plan to handle cases with missing outcome data:**

Impute missing outcome data

**Process description:**

Overall attrition and differential attrition between experimental and comparison groups will be monitored throughout the duration of the study. If necessary, we will use multiple imputation to replace missing data and perform a sensitivity analysis with and without imputation.

**Planned multiple comparisons adjustment, confirmatory question 1 (Student Social, Emotional, & Behavior):**

Yes

**Number of planned comparisons to adjust, confirmatory question 1 (Student Social, Emotional, & Behavior):**

Because we will conduct analyses for each of the 7 prosocial subscales on the SSIS, we will have 7 adjustments (Communication, Cooperation, Assertion, Responsibility, Empathy, Engagement, Self-Control)

**Correction for multiple comparisons, confirmatory question 1 (Student Social, Emotional, & Behavior):**

Benjamini-Hochberg correction

**Planned multiple comparisons adjustment, confirmatory question 2 (Student Social, Emotional, & Behavior):**

Yes

**Number of planned comparisons to adjust, confirmatory question 2 (Student Social, Emotional, & Behavior):**

Because we will conduct analyses for each of the 5 problem behavior subscales on the SSIS, we will have 5 adjustments (Externalizing, Bullying, Hyperactivity/Inattention, Internalizing, Autism Spectrum)

**Correction for multiple comparisons, confirmatory question 2 (Student Social, Emotional, & Behavior):**

Benjamini-Hochberg correction

**Planned multiple comparisons adjustment, confirmatory question 3 (Student Social, Emotional, & Behavior):**

Yes

**Number of planned comparisons to adjust, confirmatory question 3 (Student Social, Emotional, & Behavior):**

Because we will conduct analyses for each of the 7 prosocial subscales on the SSIS, we will have 7 adjustments (Communication, Cooperation, Assertion, Responsibility, Empathy, Engagement, Self-Control)

**Correction for multiple comparisons, confirmatory question 3 (Student Social, Emotional, & Behavior):**

Benjamini-Hochberg correction

**Planned multiple comparisons adjustment, confirmatory question 4 (Student Social, Emotional, & Behavior):**

Yes

**Number of planned comparisons to adjust, confirmatory question 4 (Student Social, Emotional, & Behavior):**

Because we will conduct analyses for each of the 7 prosocial subscales on the SSIS, we will have 7 adjustments (Communication, Cooperation, Assertion, Responsibility, Empathy, Engagement, Self-Control)

**Correction for multiple comparisons, confirmatory question 4 (Student Social, Emotional, & Behavior):**

Benjamini-Hochberg correction

**Planned multiple comparisons adjustment, confirmatory question 7 (Student Social, Emotional, & Behavior):**

Yes

**Number of planned comparisons to adjust, confirmatory question 7 (Student Social, Emotional, & Behavior):**

We will conduct analysis for each of the 2 subscales on the Academic Competence Evaluation Scale (Academic Motivation and Academic Engagement)

**Correction for multiple comparisons, confirmatory question 7 (Student Social, Emotional, & Behavior):**

Benjamini-Hochberg correction

**Planned multiple comparisons adjustment, confirmatory question 8 (Student Achievement - Literacy):**

Yes

**Number of planned comparisons to adjust, confirmatory question 8 (Student Achievement - Literacy):**

We will conduct analysis for each of the 2 subscales on the Academic Competence Evaluation Scale (Academic Motivation and Academic Engagement)

**Correction for multiple comparisons, confirmatory question 8 (Student Achievement - Literacy):**

Benjamini-Hochberg correction

**Planned multiple comparisons adjustment, confirmatory question 11 (Student Achievement):**

Yes

**Number of planned comparisons to adjust, confirmatory question 11 (Student Achievement):**

Two

**Correction for multiple comparisons, confirmatory question 11 (Student Achievement):**

Benjamini-Hochberg correction

**Planned multiple comparisons adjustment, confirmatory question 12 :**

Yes

**Number of planned comparisons to adjust, confirmatory question 12 :**

Two

**Correction for multiple comparisons, confirmatory question 12 :**

Benjamini-Hochberg correction

**Comments:**

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## **Section VIII: Additional Information**

**Links:**

<https://thepeakproject.org/>

Project website

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**Files:**

File Name: [Analytic Strategy for SREE registry.docx](#)

Description:

**Comments:**

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