



THE EFFECTIVENESS
OF CHICKEN SOUP
FOR THE SOUL
HALLWAY HEROES
FOR IMPROVING
STUDENT SOCIAL
EMOTIONAL SKILLS
(B)

May 2019

 **SEGMEASUREMENT**
BUILDING BETTER ASSESSMENTS / EVALUATING PRODUCT EFFECTIVENESS

The Effectiveness of Chicken Soup for the Soul Hallway Heroes for Improving Student Social Emotional Skills (B)

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Executive Summary

Overview

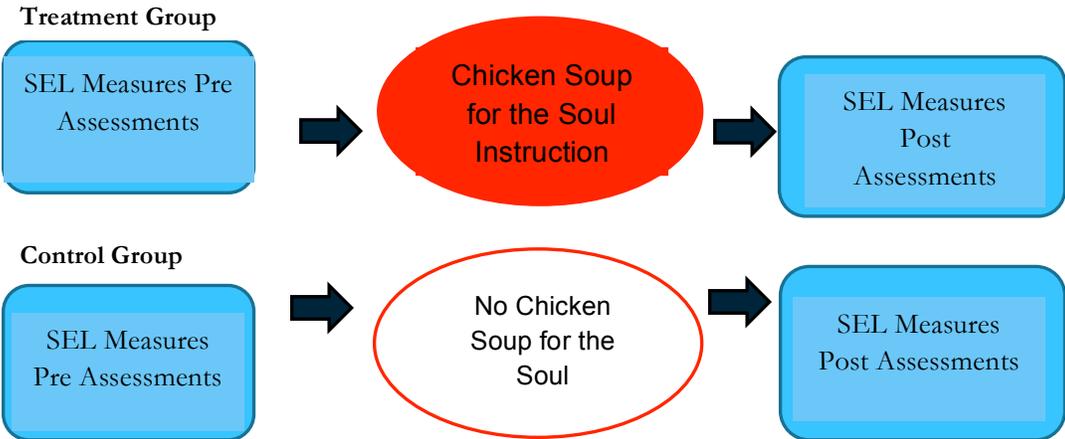
In January through April 2019, SEG Measurement conducted a study of the effectiveness of Chicken Soup for the Soul Hallway Heroes. Hallway Heroes is designed to improve grade one through eight students’ Social Emotional Learning (SEL) skills. Hallway Heroes addresses all five of the CASEL SEL competencies: self-awareness, self-management, responsible decision-making, relationship skills and social awareness

The study was conducted over an eight-week period in three schools in Louisiana and Colorado. SEG investigated the impact of Chicken Soup for the Soul Hallway Heroes instruction, on SEL skill growth, between a group of fourth and fifth grade students receiving instruction using Hallway Heroes treatment group) and a comparable group of students who did not receive instruction using the product (control group).

Study Design

The primary research question addressed by this study is: “Is Chicken Soup for the Soul Hallway Heroes effective in improving students’ SEL skills? To answer this question, we employed a quasi-experimental design; a non-randomly assigned treatment group was compared to a control group. The treatment group of students (students who received Chicken Soup for the Soul instruction) was compared to a control group of students (who did not receive Chicken Soup for the Soul instruction). Analysis of Covariance (ANCOVA), a statistical method that adjusts for potential differences in the initial SEL levels of the groups was used to analyze the data. The study design is depicted in Figure 1.

Figure 1: Study Design



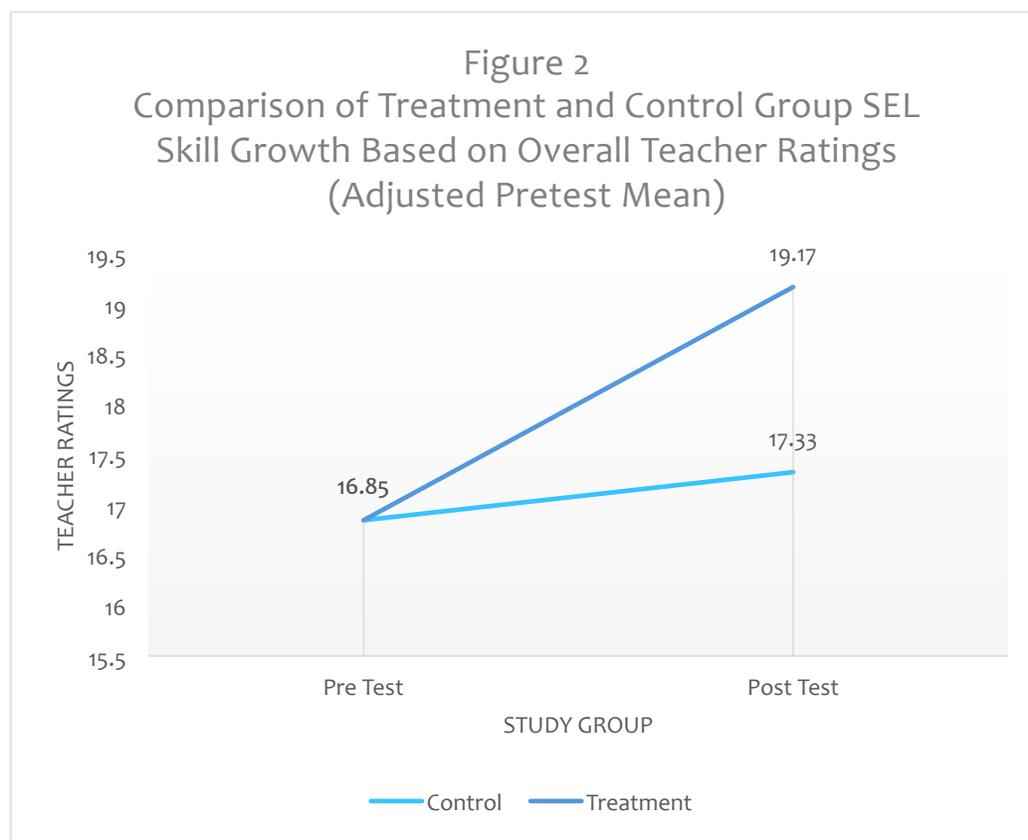
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SEG Measurement collected pre-assessment data using the SESR teacher ratings to evaluate each student's SEL skills at the beginning of the study. At the end of the eight-week instructional period, SEG collected the post-assessment SESR data.

Results

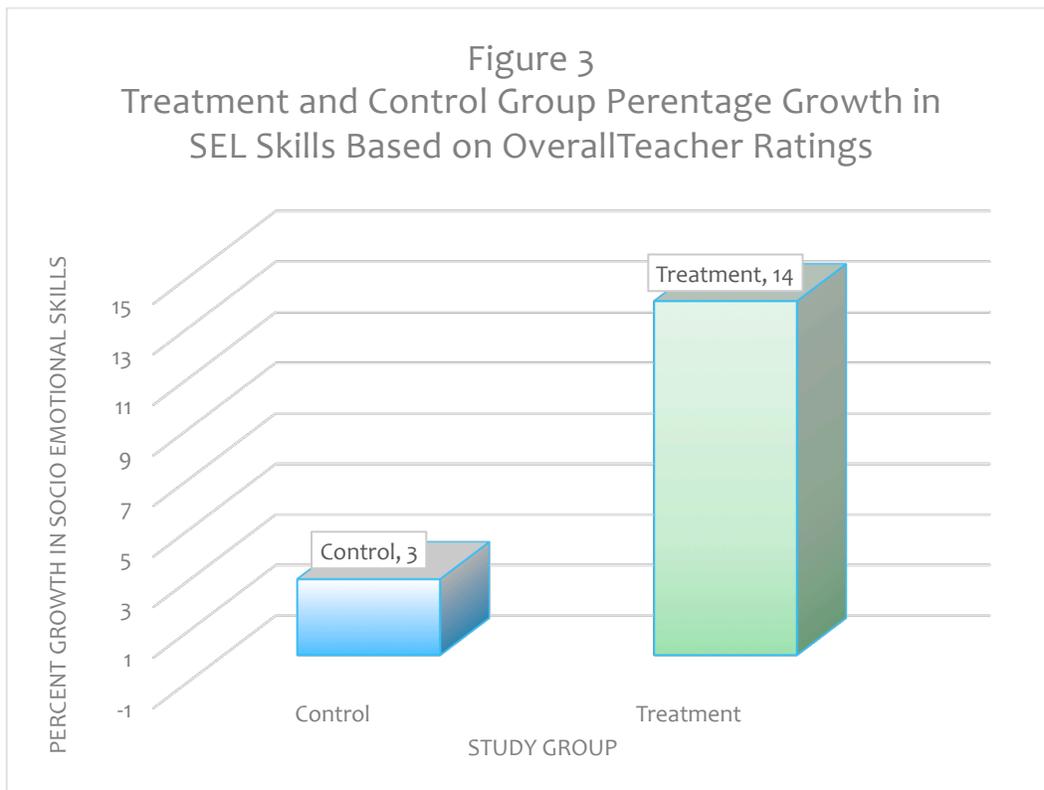
The results show that Chicken Soup for the Soul Hallway Heroes is an effective tool for developing students' social emotional skills. Students who received instruction using Chicken Soup for the Soul Hallway Heroes showed greater growth in SEL skills than comparable students who did not receive instruction using Chicken Soup for the Soul Hallway Heroes.

The teacher ratings (SESR) revealed that students receiving instruction using Hallways Heroes showed statistically significant and educationally meaningful greater growth in SEL skills than did students who did not receive Hallway Heroes instruction. The effect size, a common metric used to compare differences between groups and across studies, was .38.¹ The Hallways Heroes group showed 14% growth; the control group showed just 3% growth over the course of the study. When examining the individual component skills, Hallway Heroes instruction had the greatest impact on Responsible Decision-Making skills (Effect Size=.48) and Social Awareness skills (Effect Size= .35). These results are illustrated in Figure 2 and 3 below.



¹ The effect size was calculated using Cohens D. This is the difference between the two group average scores expressed as the number of standard deviations of difference. The difference between the treatment group and control group means was divided by the standard deviation for the control group.

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Hallway Heroes instruction was equally effective at both grades four and five.

The effect size for Hallway Heroes compares favorably with efficacy research for other educational products. The observed .38 effect size is particularly notable given only eight weeks of instruction. It is reasonable to assume that even larger effects would be found for longer periods of instruction.

Limitations. The students were not assigned randomly to the treatment and control group in the quasi-experimental research design used. However, the ANCOVA analysis controlled for initial ability differences; therefore, and we can be more certain Chicken Soup for the Soul Hallway Heroes is responsible for the observed effects. The effects were both statistically significant and educationally meaningful.

In summary, the findings of this study demonstrate that the Chicken Soup for the Soul Hallway Heroes program is effective in developing students' Social Emotional Skills.

Introduction

Overview

This study examines the effectiveness of the Hallway Heroes instructional program offered by Chicken Soup for the Soul. Hallway Heroes is designed to improve grade one through eight students' Social Emotional Learning (SEL) skills. The eight-week study conducted during the 2018-2019 school year, in three schools in Louisiana and Colorado, investigated the impact of Chicken Soup for the Soul Hallway Heroes instruction on the use among matched groups of fourth and fifth grade students using and not using the product. SEL skill growth among students receiving Chicken Soup for the Soul Hallway Heroes instruction (treatment group) was compared to SEL skill growth among students who did not receive Chicken Soup for the Soul Hallway Heroes instruction (control group). Teacher ratings of SEL skills were used to compare SEL skill growth for the treatment and control group students.

Chicken Soup for the Soul Hallway Heroes is an SEL program. Chicken Soup for the Soul books have been used informally in classrooms for over 20 years. Chicken Soup for the Soul found that storytelling is a highly effective and enjoyable way to teach students and developed a curriculum to go along with selected Chicken Soup for the Soul stories. Hallway Heroes addresses all five of the CASEL SEL competencies: self-awareness, self-management, responsible decision-making, relationship skills and social awareness.

The foundation for Hallway Heroes is the real-life stories in each unit which involve social and emotional issues students face every day. Each lesson's activities evolve from the stories and are relatable to the students. Chicken Soup for the Soul Hallway Heroes includes teacher guides, lesson plans books, student journals, and copies of the Chicken Soup for the Soul: Be the Best You Can Be book. Additional online resources contain handouts, state alignments to literacy and social and emotional learning standards, SEL correlations, videos and more. Spanish and school counselor packages are also available.

The teacher begins instruction with a pre-reading activity or discussion. Students will read a short story that addresses social issues. The teacher will encourage classroom discussion after the reading, and then students will answer questions in their journals and correlate the story to their own real-life experiences. Every lesson incorporates reading, comprehension, listening, discussion and writing to aim to grow their SEL skills. Small group and whole class activities provide opportunities for student interaction.

Past Research

Research indicates that literacy-based instruction can positively impact students' performance in SEL development. Chicken Soup for the Soul has worked with education experts and the non-profit Boniuk Foundation to create a new Social Emotional Learning program. This study explores the extent to which students who receive instruction using Chicken Soup for the Soul's Hallway Heroes improve their SEL skills.

Methods and Procedures

Research Questions

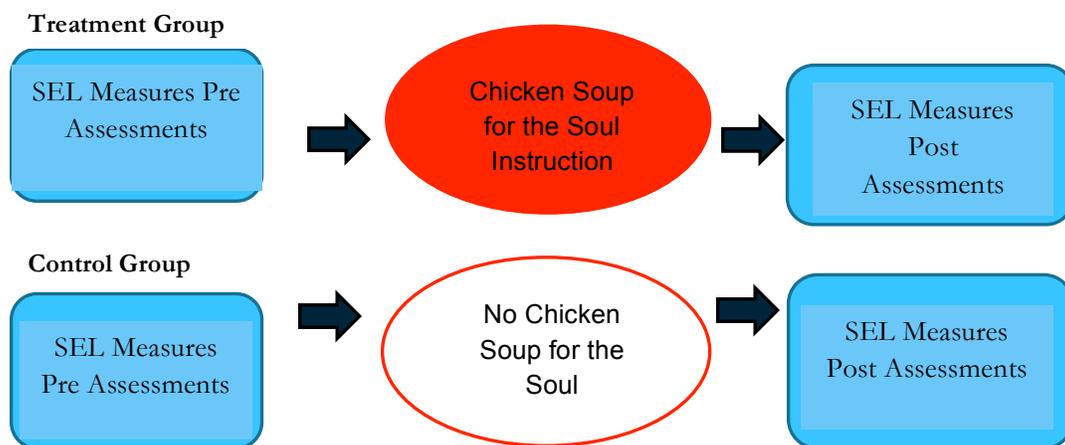
The primary research question addressed by this study is: “Is Chicken Soup for the Soul Hallway Heroes effective in improving students’ SEL skills?” The specific operational questions addressed to answer this are:

- Do fourth and fifth grade students who receive instruction using Chicken Soup for the Soul Hallway Heroes show larger gains in SEL skills than comparable students who do not receive instruction using Chicken Soup for the Soul? (Main effects for study group)
- Is Chicken Soup for the Soul Hallway Heroes any more effective at either grade level? (interaction of study group and grade)

Study Design

The study employed a quasi-experimental design; a non-randomly assigned treatment group was compared to a control group. A treatment group (students who received Chicken Soup for the Soul instruction) was compared to a control group (students who did not receive Chicken Soup for the Soul instruction). The results were adjusted for potential differences in the initial SEL levels of the groups. The study design is depicted in Figure 6.

Figure 6: Study Design



Program Implementation

Students included in the study treatment group began using Chicken Soup for the Soul Hallway Heroes on or about February 1, 2019. To support local implementation, Chicken Soup for the Soul offered key supports for school personnel including: (1) on-site training with a Chicken Soup for the Soul specialist; (2) Chicken Soup for the Soul Teacher and Implementation Guides; (3) Orientation Videos; (4) Sample Lessons and Online Interactive Training; and (5) a full classroom set of the Chicken Soup for the Soul Hallway Heroes Program.

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For this study, teachers received initial onsite training and had access to online training. All teachers were given access to Chicken Soup for the Soul's training videos, which are available on demand, are interactive, and accessible through the online teacher portal. The online training includes an Overview, Training Goals, information on Bullying and Cyber bullying, Harnessing the Power of Storytelling and Literacy, Social and Emotional Learning, Creating a Safe Environment, Teaching a Lesson and a Sample Lesson. School administrators and teachers determined models for implementing Chicken Soup for the Soul Hallway Heroes at their sites. The program was the students' core SEL instruction. Chicken Soup for the Soul instruction averaged one to three hours per week on the program for the duration of the study. Students who did not receive access to Chicken Soup for the Soul Hallway Heroes did not receive instruction using Chicken Soup for the Soul Hallway Heroes instruction.

Fidelity

Ensuring that instruction was delivered as intended is a fundamental component of fidelity. Fidelity for the treatment group was monitored using brief teacher surveys administered at several points during the study. Most treatment group teachers reported used Chicken Soup for the Soul Hallway Heroes one to three hours per week. While all teachers averaged three or more hours of Hallway Heroes instruction per week, it should be noted that one treatment group teacher used the program with their class less than one hour per week during the first four weeks, and another used the program with their class less than one hour per week during weeks four to eight of the program implementation. At the end of four weeks, most teachers in the treatment group were on Hallway Heroes Lessons 2 or 3. At the end of eight weeks, teachers were using Hallway Heroes Lessons 4, 5 or 6, except for one teacher who was on Lesson 3. All teachers completed approximately 6 SEL lessons or 8 weeks of instruction.

Instrumentationⁱ

Student SEL skills were measured using the teacher rating of social emotional skills (SESR). The instrument was developed by SEG to measure the five skill areas identified by CASEL:

- Self-awareness
- Self-management
- Social awareness
- Relationship skills
- Responsible Decision-making

This is a widely accepted definition of SEL. In the self-awareness category, feelings, interests, values, strengths and abilities were measured, as well as self-confidence. Self-management included measuring the regulation of emotions and the ability to set personal and academic goals. For social awareness, the ability to empathize with others as well as recognition and acceptance of individual and group differences were measured. The relationship skills measured included establishing and maintaining healthy relationships based on cooperation, managing and resolving interpersonal conflict, resisting inappropriate social pressure, not participating in bullying, discouraging bullying and seeking acceptance and assistance when needed. The last SEL skill measured for the study was responsible decision making: using problem solving and decision-making skills effectively in academic and social situations; considering ethical standards, safety, standards of conduct, respect for others, contributing to the wellbeing of the school and community; and considering the consequences of his/her actions.

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The SESR asks teachers to rate students' current SEL skill level in each of the five skill areas. A factor analytic study of the instrument (Principal Components with Varimax rotation) showed that all five SESR items loaded on a single factor, with loadings above .55. The reliability of the SESR is .94 (Cronbachs Alpha).

Data Collection

At the beginning of February 2019, SEG Measurement provided the SESR to teachers to provide; these initial ratings were used to establish baseline equivalence of the treatment and control groups. Each student was identified with a unique identifying number to both preserve confidentiality and to allow for later linking to the post SESR.

In early April of 2019, SEG Measurement requested end-of-study ratings from the participating teachers. All participating districts provided SEG Measurement with the Post SESR assessments they were asked to complete.

Population

Participants in this study were drawn from three schools, in two districts. Students enrolled in grades four and five participated in the study. For the study, an almost equal number of treatment and control classrooms were recruited. Schools selected teachers and classes to participate as part of the treatment group and identified comparable control group classes with similar ability and demographic characteristics. Both districts participating in the study were medium to large urban districts. One school district had a population of about 55,000 students, while the other district reported a population of approximately 39,921 students.

Students in eleven fourth-grade classes participated (eleven teachers); four contributing to the treatment group and seven contributing to the control group. Students in twelve fifth-grade classrooms participated in the study (twelve teachers), five contributing to the control group and seven contributing to the treatment group.

Four hundred and sixty-seven students—those that had teacher rating pretest scores—were in the initial study sample. For 466 of the participants, student gender was reported. Of these, about half were boys and half were girls. This was true for both the treatment and control groups. For 415 participants, student ethnicity was reported.

The distribution of students included in the population is described in Tables 1 and 2.

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**Table 1:
Gender Profile of Study Population**

Treatment/Control			Gender		Total
			Female	Male	
Control	Grade	4.0	70	68	138
		5.0	29	29	58
	Total			99	97
Treatment	Grade	4.0	51	51	102
		5.0	77	91	168
	Total			128	142
Total	Grade	4.0	121	119	240
		5.0	106	120	226
	Total			227	239

**Table 2:
Ethnicity Profile of Study Population**

Treatment/Control			Ethnicity					Total	
			Caucasian / White	African American/ Black	Hispanic/ Latino	Asian	Native American		Other/Two or More Ethnicities
Control	Grade	4.0	28	31	31	4	2	8	108
		5.0	9	14	14	1	0	2	45
	Total			37	73	45	5	2	10
Treatment	Grade	4.0	26	35	35	4	1	45	150
		5.0	37	43	43	3	0	45	176
	Total			63	64	78	7	1	30
Total	Grade	4.0	54	66	66	8	3	45	246
		5.0	46	57	57	4	0	45	214
	Total			100	137	123	12	3	40

The initial treatment and control group were similar in ability. The average control group score was 18.20; the average treatment group score was 15.99. The two groups were approximately .42 standard deviations apart. This is within field accepted guidelines for comparing groups in a quasi-experimental design (within .5 standard deviations).

**Table 3:
Comparison of Initial Ability of Study Population (Pretest Scores)**

	Mean	N	Standard Deviation
Control	18.20	270	5.01
Treatment	15.99	197	4.30

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Analysis Sample

To be included in the final analysis sample, students in both the treatment and control groups were required to have both pretest and posttest results available. Based on these criteria, 435 students were included in the final analyses. The analysis sample included 246 treatment group students and 189 control group students. Attrition was low. About 7% of the initial student population students were not included in the final analysis because they did not have a posttest score.

As illustrated in Tables 4, 5 and 6 below, the two groups were comparable demographically; they were nearly the same with respect to gender and ethnicity.

The treatment and control groups for both grades were similar in ability. The treatment group had an average pretest score of 15.82, while the control group had an average pretest score of 18.20, within 2.38 points (.48 SD) on the Pre assessment of SEL skills. This is comparable to what was observed for the total population before study attrition.

Individual analyses may show somewhat different sample sizes if the included variables contained missing data.

**Table 4:
Gender Profile of Study Analysis Sample**

Treatment/Control			Gender		Total
			Female	Male	
Control	Grade	4.0	67	64	131
		5.0	51	50	101
	Total		118	114	232
Treatment	Grade	4.0	28	30	58
		5.0	68	77	145
	Total		96	107	203
Total	Grade	4.0	95	94	189
		5.0	119	127	246
	Total		214	221	435

**Table 5
Ethnicity Profile of Study Analysis Sample**

	Mean	N	Standard Deviation
Control	18.20	246	4.95
Treatment	15.82	189	4.19

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Data Analysis/Results

ANCOVA

The effectiveness of Chicken Soup for the Soul Hallway Heroes was evaluated using ANCOVA. ANCOVA can be used to examine the differences in outcomes between a treatment and control group, while adjusting for any differences in initial SEL skills. ANCOVA was used to examine the differences in SEL growth (post assessment scores; (dependent variable) between the treatment and control groups (independent variable) while adjusting for the initial SEL skills of the students (pre assessment scores). Separate analyses were executed for the overall measures and separate subskills where appropriate.

Table 6
Comparison of Initial Ability (Analysis Sample; Pretest Scores)

Analysis and Results

Treatment/Control			Caucasian/ White	African American/ Black	Hispanic/ Latino	Asian	Native American	Other or Two Ethnicities	Total
Control	Grade	4.0	25	63	29	4	2	8	135
		5.0	26	26	35	4	1	9	106
	Total		51	89	64	8	3	17	232
Treatment	Grade	4.0	8	9	14	1	0	2	38
		5.0	31	27	39	1	0	21	124
	Total		39	36	53	2	0	23	153
Total	Grade	4.0	33	72	43	5	2	10	169
		5.0	57	53	74	5	1	30	225
	Total		90	125	117	10	3	40	385

Teacher Ratings of Student SEL Skills

SEG examined the differences in SEL skills (dependent variable) between (treatment group) students receiving Hallways Heroes instruction (independent variable) and (control group) students who did not receive instruction, adjusting for the initial SEL Skill Level of the students (covariate) using Analysis of Covariance (ANCOVA). Hallway Heroes Grade Level was also considered as a factor (Independent variable) to determine if Hallway Heroes instruction was more effective at grade four or five. SEG conducted an additional set of analyses examining the impact of Hallways Heroes instruction on the five individual skill areas within the broader SEL skills domain.

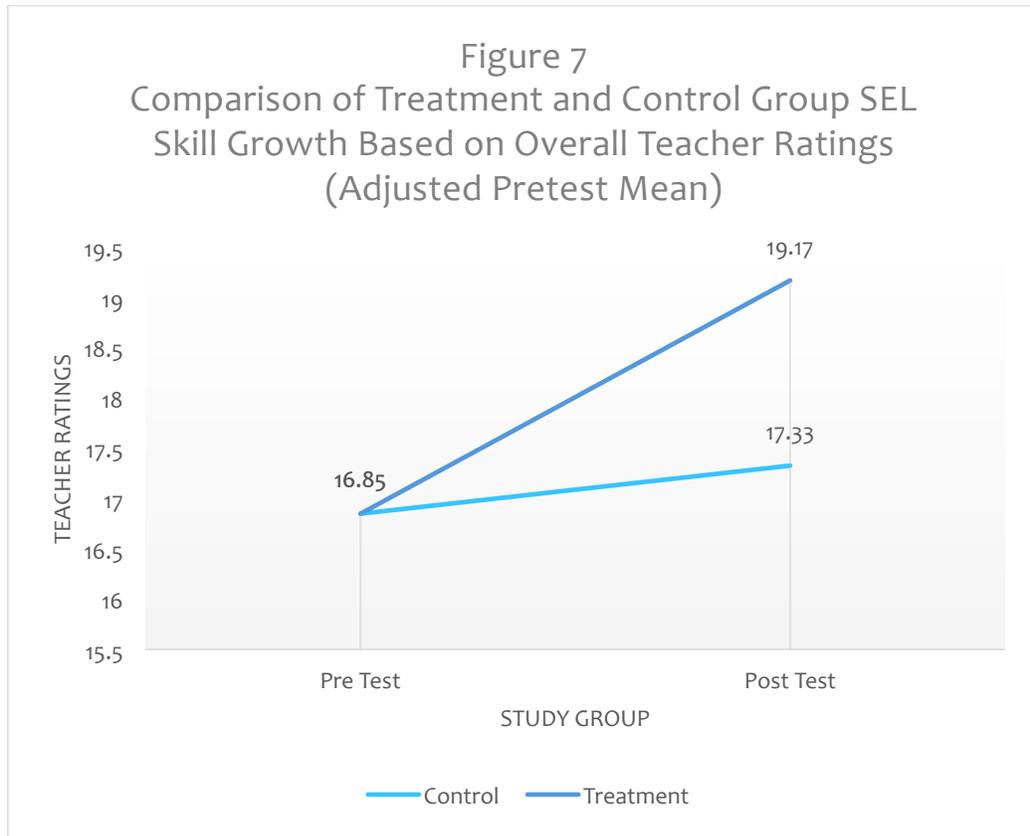
Students receiving instruction using Hallways Heroes showed significantly greater growth in SEL skills than did students who did not receive Hallway Heroes instruction ($F = .319.67, df=5/434; p<.001; Effect Size=.38$). The Hallway Heroes treatment group achieved a mean teacher rating of 19.17, while the control

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group achieved a mean rating of only 17.33 (adjusted for the pretest). The Hallways Heroes group showed 14% growth; the control group showed just 3% growth over the course of the study.

There was no significant interaction between Study Group and Grade ($F = 1.08$, $df=1/435$; $p=.299$), suggesting that students receiving instruction using Hallway Heroes was equally effective at both grades four and five.

The results are summarized in Figures 7 and 8 and Tables 7, 8 9 below.



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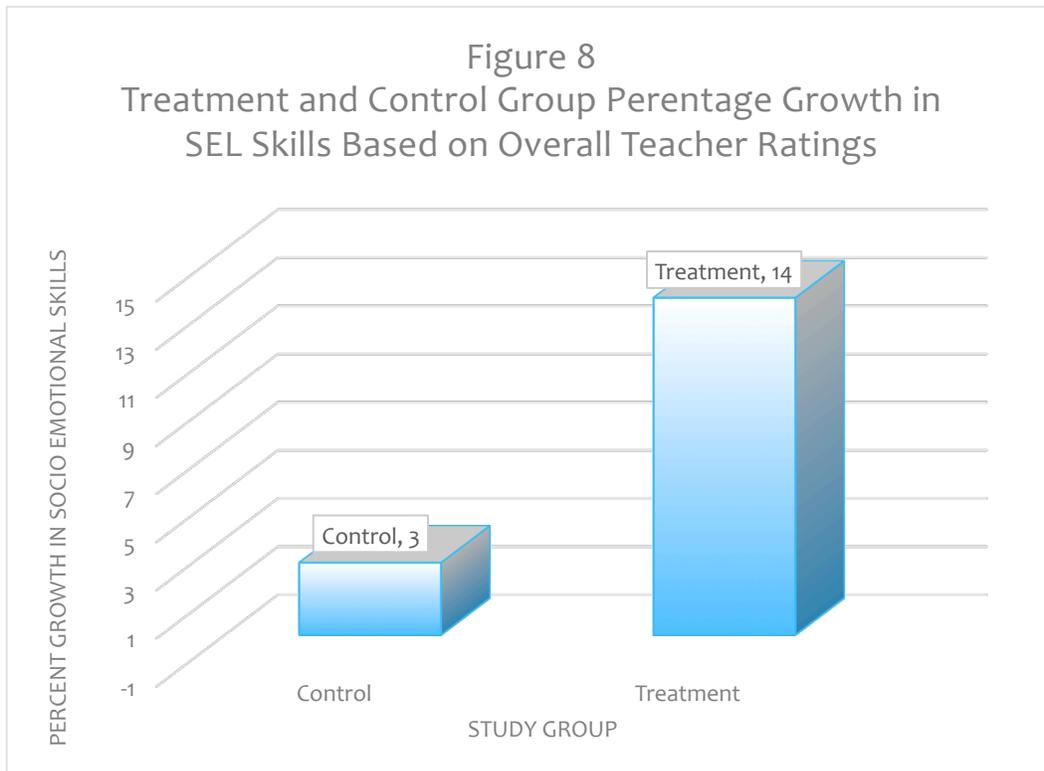


Table 7: ANCOVA of the Treatment and Control Group Overall Teacher Rating Posttest Scores

Source	Type III Sum of Squares	df	Mean Square	F	Significance
Corrected Model	5991.502	4	1497.875	319.699	P<.010
Intercept	577.495	1	577.495	123.258	P<.001
TeacherPre	5902.203	1	5902.203	1259.735	P<.001
Study Group	307.727	1	307.727	65.680	P<.001
Grade	52.101	1	52.101	11.120	P<.001
Study Group by Grade	5.067	1	5.067	1.081	P<.299
Error	2014.668	430	4.685		
Total	154912.000	435			
Corrected Total	8006.170	434			

Table 8: Descriptive Comparison of the Treatment and Control Group Overall Teacher Rating Posttest Scores (Adjusted for Pretest Performance)

Group	Number of Students	Posttest Scores	
		Mean	Standard Deviation
Control	189	17.32	4.86
Treatment	246	19.17	3.81
Total	435	16.85	4.30

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Table 9: Descriptive Comparison of the Treatment and Control Group Teacher Rating Posttest Scores by Grade Level (Adjusted for Pretest Performance)

Group	Number of Students	Posttest Scores	
		Mean	Standard Deviation
Control			
Grade 4	131	17.07	4.91
Grade 5	58	17.58	4.72
Treatment			
Grade 4	101	18.69	3.58
Grade 5	145	19.66	3.93
Total	435	16.85	4.30

Teacher Ratings of Student Self-Awareness

SEG examined the differences in each of the five individual skill areas comprising SEL skills (dependent variable) between (treatment group) students receiving Hallways Heroes instruction (independent variable) and (control group) students who did not receive instruction, adjusting for the initial SEL Skill Level of the students (covariate) using Analysis of Covariance (ANCOVA) Hallway Heroes Again, grade level was considered as a factor (Independent variable) to determine if Hallway Heroes instruction was more or less effective at grade four or five. Students showed growth in all five of the individual skill areas comprising SEL skills.

Hallway Heroes Instruction Impact on Self-Awareness

Students receiving instruction using Hallways Heroes Showed significantly greater growth in self-awareness than did students who did not receive Hallway Heroes instruction ($F = 41.70$, $df=5/435$; $p<.001$; Effect Size=.27). The Hallway Heroes treatment group achieved a mean rating for self-awareness of 3.78, while the control group achieved a mean rating of only 3.40 for self-awareness (adjusted for the pretest). The Hallways Heroes group showed 14% growth; the control group showed just 3% growth over the course of the study.

There was not significant interaction between Study Group and Grade ($F = .74$, $df=1/434$; $p=.390$), suggesting that students receiving instruction using Hallway Heroes was equally effective at improving Self-Awareness skills at both grades four and five.

The results are summarized in Tables 10, 11, and 12 below.

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Table 10: ANCOVA of the Treatment and Control Group Self-Awareness Scores

Source	Type III Sum of Squares	Df	Mean Square	F	Significance
Corrected Model	243.248a	4	60.812	191.525	P<.001
Intercept	37.168	1	37.168	117.059	P<.001
Self-Awareness Pre	241.078	1	241.078	759.266	P<.001
Study Group	13.242	1	13.242	41.705	P<.001
Grade	.403	1	.403	1.270	P=.260
Study Group by Grade	.235	1	.235	.740	P=.390
Error	136.531	430	.318		
Total	6039.000	435			
Corrected Total	379.779	434			

Table 11: Descriptive Comparison of the Treatment and Control Group Self-Awareness Scores (Adjusted for Pretest Performance)

Group	Number of Students	Posttest Scores	
		Mean	Standard Deviation
Control	189	3.40	1.04
Treatment	246	3.78	.84
Total	435	3.59	.94

Table 12: Descriptive Comparison of the Treatment and Control Group Self-Awareness Scores by Grade Level (Adjusted for Pretest Performance)

Group	Number of Students	Posttest Scores	
		Mean	Standard Deviation
Control			
Grade 4	131	3.35	1.06
Grade 5	58	3.46	1.03
Treatment			
Grade 4	101	3.77	.73
Grade 5	145	3.79	.91
Total	435	3.59	.94

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Hallway Heroes Instruction Impact on Self-Management

Students receiving instruction using Hallways Heroes showed significantly greater growth in Self-Management than did students who did not receive Hallway Heroes instruction ($F = 44.76$, $df=5/435$; $p<.001$; Effect Size=.27). The Hallway Heroes treatment group achieved a mean rating for Self-Management of 3.78, while the control group achieved a mean rating of only 3.40 for self-management (adjusted for the pretest). The Hallways Heroes group showed 14% growth in Self-Management; the control group showed just 3% growth over the course of the study.

There was not significant interaction between Study Group and Grade ($F = .91$, $df=5/434$; $p=.342$), suggesting that students receiving instruction using Hallway Heroes was equally effective in improving Self-Management skills at both grades four and five.

The results are summarized in Tables 13, 14 and 15.

Table 13: ANCOVA of the Treatment and Control Group Self Management Scores

Source	Type III Sum of Squares	Df	Mean Square	F	Significance
Corrected Model	250.589a	4	62.647	208.516	P<.001
Intercept	39.246	1	39.246	130.627	P<.001
Self Management Pre	248.419	1	248.419	826.842	P<.001
Study Group	13.449	1	13.449	44.764	P<.001
Grade	.357	1	.357	1.189	P=.276
Study Group * Grade	.272	1	.272	.905	P=.342
Error	129.190	430	.300		
Total	6039.000	435			
Corrected Total	379.779	434			

Table 14: Descriptive Comparison of the Treatment and Control Group Self-Management Scores (Adjusted for Pretest Performance)

Group	Number of Students	Posttest Scores	
		Mean	Standard Deviation
Control	189	3.40	1.04
Treatment	246	3.78	.84
Total	435	3.59	.94

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Table 15: Descriptive Comparison of the Treatment and Control Group Management Scores by Grade Level (Adjusted for Pretest Performance)

Group	Number of Students	Posttest Scores	
		Mean	Standard Deviation
Control			
Grade 4	131	3.35	1.06
Grade 5	58	3.46	1.03
Treatment			
Grade 4	101	3.77	.73
Grade 5	145	3.79	.91
Total	435	3.59	.94

Hallway Heroes Instruction Impact on Social Awareness

Students receiving instruction using Hallways Heroes showed significantly greater growth in Social Awareness than did students who did not receive Hallway Heroes instruction ($F = 35.109$, $df=1/435$; $p<.001$; Effect Size=.35). The Hallway Heroes treatment group achieved a mean rating for Social Awareness of 4.0, while the control group achieved a mean rating of only 3.62 for Social Awareness (adjusted for the pretest). The Hallways Heroes group showed 13% growth in Social Awareness the control group showed just 2% growth over the course of the study.

There was not significant interaction between Study Group and Grade ($F = .91$, $df=5/434$; $p=.342$), suggesting that students receiving instruction using Hallway Heroes was equally effective in improving Social Awareness skills at both grades four and five.

The results are summarized in Tables 16, 17, 18.

Table 16 ANCOVA of the Treatment and Control Group Social Awareness Scores

Source	Type III Sum of Squares	Df	Mean Square	F	Significance
Corrected Model	270.681a	4	67.670	237.330	P<.001
Intercept	25.407	1	25.407	89.105	P<.001
Social Awareness Pre	267.203	1	267.203	937.123	P<.001
Study Group	10.011	1	10.011	35.109	P<.001
Grade	3.157	1	3.157	11.072	P<.001
Study Group * Grade	1.173	1	1.173	4.116	P=.043
Error	122.607	430	.285		
Total	6728.000	435			
Corrected Total	393.287	434			

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Table 17: Descriptive Comparison of the Treatment and Control Group Social Awareness Scores (Adjusted for Pretest Performance)

Group	Number of Students	Posttest Scores	
		Mean	Standard Deviation
Control	189	3.62	1.09
Treatment	246	4.00	.83
Total	435	3.79	.95

Table 18: Descriptive Comparison of the Treatment and Control Group Social Awareness Scores by Grade Level (Adjusted for Pretest Performance)

Group	Number of Students	Posttest Scores	
		Mean	Standard Deviation
Control			
Grade 4	131	3.58	1.12
Grade 5	58	3.65	1.00
Treatment			
Grade 4	101	3.80	.84
Grade 5	145	4.10	.83

Hallway Heroes Instruction Impact on Responsible Decision-Making

Students receiving instruction using Hallways Heroes showed significantly greater growth in Responsible Decision Making than did students who did not receive Hallway Heroes instruction ($F = 54.042$, $df=1/435$; $p < .001$; Effect Size = .48). The Hallway Heroes treatment group achieved a mean rating for Responsible Decision Making of 3.92, while the control group achieved a mean rating of only 3.39 for Responsible Decision Making (adjusted for the pretest). The Hallways Heroes group showed 19% growth in Responsible Decision Making the control group showed just 3% growth over the course of the study.

There was not significant interaction between Study Group and Grade ($F = 2.189$, $df=1/435$; $p = .140$), suggesting that students receiving instruction using Hallway Heroes was equally effective in improving Responsible Decision-Making skills at both grades four and five.

The results are summarized in Tables 19, 20 and 21.

The Effectiveness of Chicken Soup for the Soul Hallway Heroes for Improving Student Social Emotional Skills (B)

Table 19: ANCOVA of the Treatment and Control Group Responsible Decision-Making Scores

Source	Type III Sum of Squares	Df	Mean Square	F	Significance
Corrected Model	295.657a	4	73.914	219.772	P<.001
Intercept	38.519	1	38.519	114.529	P<.001
Decision Making Pre	282.795	1	282.795	840.847	P<.001
Study Group	18.176	1	18.176	54.042	P<.001
Grade	1.909	1	1.909	5.675	P=.018
Study Group * Grade	.736	1	.736	2.189	P=.140
Error	144.619	430	.336		
Total	6252.000	435			
Corrected Total	440.276	434			

Table 20: Descriptive Comparison of the Treatment and Control Group Responsible Decision-Making Scores (Adjusted for Pretest Performance)

Group	Number of Students	Posttest Scores	
		Mean	Standard Deviation
Control	189	3.39	1.10
Treatment	246	3.92	.93
Total	435	3.67	1.01

Table 21: Descriptive Comparison of the Treatment and Control Group Responsible Decision-Making Scores by Grade Level (Adjusted for Pretest Performance)

Group	Number of Students	Posttest Scores	
		Mean	Standard Deviation
Control			
Grade 4	131	3.37	1.08
Grade 5	58	3.42	1.13
Treatment			
Grade 4	101	3.73	.97
Grade 5	145	3.96	.88

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Hallway Heroes Instruction Impact on Relationship Skills

Students receiving instruction using Hallways Heroes showed significantly greater growth in Relationship skills than did students who did not receive Hallway Heroes instruction ($F = 18.29$, $df=1/435$; $p<.001$; Effect Size=.21). The Hallway Heroes treatment group achieved a mean rating for Relationship skills of 3.79, while the control group achieved a mean rating of only 3.55 for Relationship skills (adjusted for the pretest). The Hallways Heroes group showed 12% growth in Relationship Skills the control group showed 5% growth over the course of the study.

There was a significant interaction between Study Group and Grade ($F=6.00$, $df=1/435$; $p=.015$), A review of the means suggests that Hallway Heroes instruction was somewhat more effective at improving relationship skills at fifth grade than at fourth grade.

The results are summarized in Tables 22, 23 and 24.

Table 22: ANCOVA of the Treatment and Control Group Relationship Skills Scores

Source	Type III Sum of Squares	Df	Mean Square	F	Significance
Corrected Model	324.232a	4	81.058	279.982	P<.001
Intercept	29.102	1	29.102	100.521	P<.001
Relationship Skills Pre	311.663	1	311.663	1076.514	P<.001
Study Group	5.296	1	5.296	18.291	P<.001
Grade	8.535	1	8.535	29.479	P<.001
Study Group * Grade	1.737	1	1.737	6.001	P=.015
Error	124.490	430	.290		
Total	6378.000	435			
Corrected Total	448.722	434			

Table 23: Descriptive Comparison of the Treatment and Control Group Relationship Skills Scores (Adjusted for Pretest Performance)

Group	Number of Students	Posttest Scores	
		Mean	Standard Deviation
Control	189	3.55	1.14
Treatment	246	3.79	.91
Total	435	3.69	1.02

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Table 24: Descriptive Comparison of the Treatment and Control Group Relationship Skills Scores by Grade Level (Adjusted for Pretest Performance)

Group	Number of Students	Posttest Scores	
		Mean	Standard Deviation
Control			
Grade 4	131	3.47	1.19
Grade 5	58	3.63	1.02
Treatment			
Grade 4	101	3.57	.92
Grade 5	145	4.01	.88

Conclusion

Summary. The results indicate that Chicken Soup for the Soul Hallway Heroes is an effective tool for developing elementary school-level students' social emotional skills. Students who received instruction using Chicken Soup for the Soul Hallway Heroes showed greater growth in SEL skills than comparable students who did not receive instruction using Chicken Soup for the Soul Hallway Heroes. Hallway Heroes was equally effective in grades 4 and 5.

We examined the differences in SEL skills growth between students receiving Hallway Heroes instruction and students not receiving Hallway Heroes instruction within a quasi-experimental using teacher ratings of SEL skill levels as an outcome measure.

Hallway Heroes Instruction Impact on SEL Skill Development. The teacher ratings (SESR) revealed that students receiving instruction using Hallways Heroes showed significantly greater growth in SEL skills than did students who did not receive Hallway Heroes instruction. This relationship was both statistically significant and educationally meaningful. The Hallways Heroes group showed 14% growth; the control group showed just 3% growth over the course of the study. The effect size was .38; this is a substantial effect, particularly given only 8 weeks of instruction.

Component Skills. Not surprisingly, our examination of the five individual SEL skills measured by the SESR supported this broader finding. Hallway Heroes instruction had the greatest effects on Responsible Decision-Making skills (ES=.48) and Social Awareness skills (.35); Self-Awareness (ES=.27), Self-Management (ES=.27) and Relationships skills (ES=.21) also showed strong effects for Hallway Heroes instruction.

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The effect size for Hallway Heroes compares favorably with efficacy research for other educational products. The observed .38 effect size is particularly notable given that the length of instruction was only eight weeks. It is reasonable to assume that even larger effects would be found for longer periods of instruction.

Grade Level Impact. Grade Level was considered as a factor as well to determine if Hallway Heroes instruction was more or less effective at grade four or five. There was no significant interaction between Study Group and Grade ($F = 1.08$, $df=1/435$; $p=.299$) on the SESR teacher ratings, suggesting that Hallway Heroes instruction was equally effective at both grades four and five.

Limitations. As with all research, this study has limitations that should be considered when interpreting the results. For example, in quasi-experimental research designs, assignment to treatment and control conditions is not random. However, by using of ANCOVA to control for initial ability differences, we can be more certain Chicken Soup for the Soul Hallway Heroes instruction is responsible for the observed effects. The effects for the SESR teacher ratings were both statistically significant and educationally meaningful.

In summary, the findings of this study demonstrate that the Chicken Soup for the Soul Hallway Heroes program is effective in developing students' Social Emotional Skills.

Participating Schools

Holly Hills Elementary School
Ponderosa Elementary School
Creswell Elementary School

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Notes

ⁱ This research is a subset of a broader study that included a student self-report measure of SEL skills (SESI). This measure is under development and was administered to collect additional information to refine the validity and reliability of the measure. The SESI also showed a statistically significant impact on SEL skill growth for Chicken Soup for the Soul Hallway Heroes.