Social and Emotional Learning Implementation with Latinx Learners

Brief 3: Relationships Between Social and Emotional Skill Building Lessons and Student Outcomes

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About the Study

This issue brief is part of a five-part series that reports findings from research conducted by ACT in collaboration with Region One Education Service Center, a provider of educational services to over 430,000 students in South Texas who are primarily Latinx and from low-income communities. The research was funded by a NewSchools Venture Fund grant awarded to ACT's Center for Social, Emotional, and Academic Learning and ACT's Center for Equity in Learning. The overarching goal of the research was to gain a better understanding of factors related to social and emotional learning (SEL), including program efficacy, implementation, and family engagement. This brief focuses on the efficacy of SEL lessons implemented during the 2019–2020 school year and examines their relationship to school-reported student outcomes such as grades, attendance, and conduct. The goals of the study were to better understand the effects of SEL programming on student outcomes and to explore other factors related to efficacy, such as lesson dosage and fidelity of implementation.

So What?

The current study investigated how SEL lessons relate to social and emotional and academic outcomes in a group of students from primarily Latinx, low-income communities with a substantial percentage of English-language learners. Despite disruption due to the COVID-19 pandemic, the fidelity of implementation was relatively high, but the dosage was somewhat lower. Although results were mixed, hours spent on the SEL lessons helped to predict two of the target outcomes: improved math grades and decreased odds of a disciplinary incident in 2020.

Now What?

In contrast to the positive reactions of students to the SEL lessons, results from the current study examining more distal outcomes were mixed. These mixed results may be due to the relatively small amount of SEL programming students received and the relatively short delay between the lessons and measurement of the outcomes. These results suggest time and effort are required to provide the sustained implementation of programming that may be necessary to produce long-term benefits to students. Replicating these results with a more traditional instructional approach and increasing the amount of SEL programming are important next steps for future research. Findings from the current study also underscore the importance of a structured implementation plan and continued monitoring of the fidelity and dosage of implementation.

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Relationships Between Social and Emotional Skill Building Lessons and Student Outcomes

Social and emotional (SE) skills are defined as interpersonal, self-regulatory, and task-related behaviors that are important for adaption to and successful performance in educational and workplace settings (Casillas, Way, & Burrus, 2015). These skills are related to important outcomes, including improved attendance, positive behaviors, improvements in school climate, and academic achievement (e.g., Claro & Loeb, 2019; Domitrovich, Durlak, Staley, & Weissberg, 2017). Further, a growing body of research shows that these skills can improve in response to social and emotional learning (SEL) interventions (Mahoney, Durlak, & Weissberg, 2018).

Given the importance of supporting these skills, the students in this study received supplemental SEL lessons following the Mosaic™ by ACT®: Social Emotional Learning assessment. After taking the assessment, students are given reports with their results and links to lessons that target five SE skills: Sustaining Effort, Getting Along With Others, Maintaining Composure, Keeping an Open Mind, and Social Connection. These lessons can be used in universal classroom settings and are designed to support students' understanding of and ability to demonstrate SE skills. Skill definitions and examples of lessons for these skills are described in Table 1.

Table 1. Description of Each Skill and Examples of Required and Optional Lessons for Each of the Skills

Skill	How a student's actions demonstrate:	Description of a required introductory lesson	Description of an additional lesson	Description of the required final lesson
Sustaining Effort	Diligence, effort, organization, self-control, and compliance with the rules.	The introductory lesson and discussion aim to introduce students to Sustaining Effort and why it is important.	One of the additional lessons contains stories about key historical figures who succeeded because of their persistence.	The final lesson allows students to demonstrate their knowledge of Sustaining Effort and apply it to their own lives.
Getting Along With Others	Collaboration, empathy, helpfulness, trust, and trustworthiness.	In the introductory group activity, students identify individuals who demonstrate Getting Along With Others and understand how exemplifying this skill has helped them succeed.	In one of the additional lessons, students learn and practice how to ask the right questions that will enable them to understand others' points of view.	In the final lesson, students learn how to effectively help others resolve conflicts by using all of the skills they have used throughout the unit. There is also a take-home essay component to the lesson.
Maintaining Composure	Stress management, emotional regulation, a positive response to setbacks, and poise.	In one introductory lesson, students learn about the key differences between Maintaining Composure and Sustaining Effort.	In one of the additional lessons, students learn how to identify and manage their emotions and the factors that cause them.	In the final lesson, students can demonstrate their knowledge of Maintaining Composure by identifying a Maintaining Composure role model and sharing how this role model exemplifies Maintaining Composure.

For each skill, three types of lessons were provided: introductory, additional, and culminating. A mandatory introductory lesson defined each skill and provided some basic information, the additional lessons provided more detail about each skill and involved activities to improve the skill, and the mandatory culminating lessons wrapped up the lessons for each skill by using the skills students developed during the prior lessons.

All students can benefit from universal SEL programming. However, it may be of increased importance among students from underserved backgrounds, such as students from low-income communities, students of color, and students who would be the first generation in their families to attend college. These students need additional supports because they often face significant barriers to college entry and degree attainment (Zuo, Mulfinger, Oswald, & Casillas, 2018). Students from underserved backgrounds may experience lower academic expectations, lower college readiness rates due to unfinished learning, and higher levels of educator stress (ACT, 2016; McKown & Weinstein, 2008; Peng & Lee, 1994). Additionally, students of color often face exclusionary discipline practices that may lead to withdrawal from learning in the classroom and eventual dropout or failure to graduate on time. (Gilliam, Maupin, Reyes, Accavitti, & Shic, 2016; Gregory, Skiba, & Noguera, 2010; Morris & Perry, 2016). SEL can help to improve teachers' SE skills, increase students' sense of belonging in academic settings, and ultimately contribute to creating more equitable learning environments (Jagers, Rivas-Drake, & Williams, 2019). Therefore, the current paper reports relationships between SEL lessons and target outcomes within a group of primarily Latinx learners from low-income communities.

To examine the efficacy of the SEL lessons used in this study, we use ACT's efficacy framework (Mattern, 2019). This framework describes several sources of efficacy data aligned to Kirkpatrick's (1976) evaluation model. This model organizes possible outcomes into four levels.

Level I: The extent to which learners find the lessons engaging and relevant

Level II: The extent to which learners acquire the intended knowledge and skills from the lessons

Level III: The extent to which learners apply content from the lessons

Level IV: The extent to which target outcomes are improved based on the lessons

Brief 2 (*Student Reactions and Perceived Gains to Social and Emotional Learning Lessons*) in this series reports initial evidence of the efficacy of these SEL lessons from a subset of students within this larger study. Students in this study were surveyed following SEL lessons on Sustaining Effort and either Getting Along With Others or Maintaining Composure. In response to survey items measuring outcomes at Kirkpatrick's Levels I through III, students reacted positively to the lessons, demonstrated evidence of improved content knowledge on various measures, and reported confidence in applying content from the lessons both inside and outside of school. In the current report, we expand on these promising results by examining how these lessons relate to student outcomes consistent with Level IV.

To examine how these lessons impact other target outcomes, we chose a subset of schools from Region One to administer the SEL lessons. The implementation of these SEL lessons aimed to follow previously proposed recommendations for interventions aiming to support skill

building (Durlak, Weissberg, & Pachan, 2010). Specifically, SEL implementation should follow SAFE (sequenced, active, focused, explicit) recommendations. For more information about these recommendations and their implementation in the current study, see Table 2.

Table 2. Definition of SAFE Recommendations and Implementation in the Current Study

Recommendation	Definition	Example of implementation in the current study
Sequenced	Incorporating a specified order of activities generally via lessons or program materials.	Lessons on each skill follow a specified order, starting with introductory lessons, continuing with four additional lessons chosen from the list, and ending with a culminating activity. See Figure 1 for more detail.
Active	Giving students a chance to act on the material; for instance, by practicing behaviors and receiving feedback.	Lessons for each of the skills incorporate active learning. For instance, one lesson on Sustaining Effort involves students practicing setting their own academic and extracurricular goals.
Focused	Having dedicated time for specific skill development.	Each of the lessons is focused on supporting the development of a specific skill, providing dedicated time for each skill.
Explicit	Specifying learning objectives with specific target skills.	Specific student learning objectives accompany each lesson. For instance, the lesson on sustaining effort described above corresponds to the goal "students will practice setting their own academic and extracurricular goals."

Previous research shows that using these four recommendations moderated the effects of programming on several outcomes. These include increased positive school behaviors such as leadership, achievement test scores, and grades, as well as decreased behaviors disruptive to learning, such as disciplinary referrals (Durlak et al., 2010). Additionally, a meta-analysis examining the effects of school-based SEL programs found that when all four SAFE recommendations were followed, school-based SEL programs led to significantly improved skills, attitudes, social behavior, and academic performance, as well as decreased conduct problems and lowered emotional distress. In contrast, school-based SEL programs that failed to follow at least one of the recommendations only significantly improved attitudes, increased academic performance, and decreased conduct problems (Durlak, Weissberg, Dymnicki, Taylor, & Schellinger, 2011).

Although a systematic implementation plan is necessary, monitoring how that plan is carried out in a specific study is essential for interpreting the program's impact. Two important aspects of implementation are fidelity and dosage (Durlak & DuPre, 2008). Fidelity refers to the extent to which the program is delivered as intended in the study. Dosage refers to how much of the intended program is delivered to the participant. Problems with these and other aspects of

Fidelity: The extent to which the program is delivered as intended in the study

Dosage: How much of the intended program is delivered to the participant

implementation are associated with less effective program outcomes (Durlak & DuPre, 2008; Durlak et al., 2011). Because implementation can affect program effectiveness, the ideal intervention received would closely correspond to the intended implementation. However, a systematic review of prevention and promotion programs found that implementation was never perfect, and few studies reach levels greater than 80% (Durlak & DuPre, 2008). Based on these results, perfect implementation is improbable for any program. Additionally, the current study was conducted amidst a global pandemic, causing disruption to the implementation plan. As such, we follow recommendations to monitor and report information on implementation in the current report, emphasizing the challenges faced due to COVID-19 and how these challenges may have impacted the results.

Method

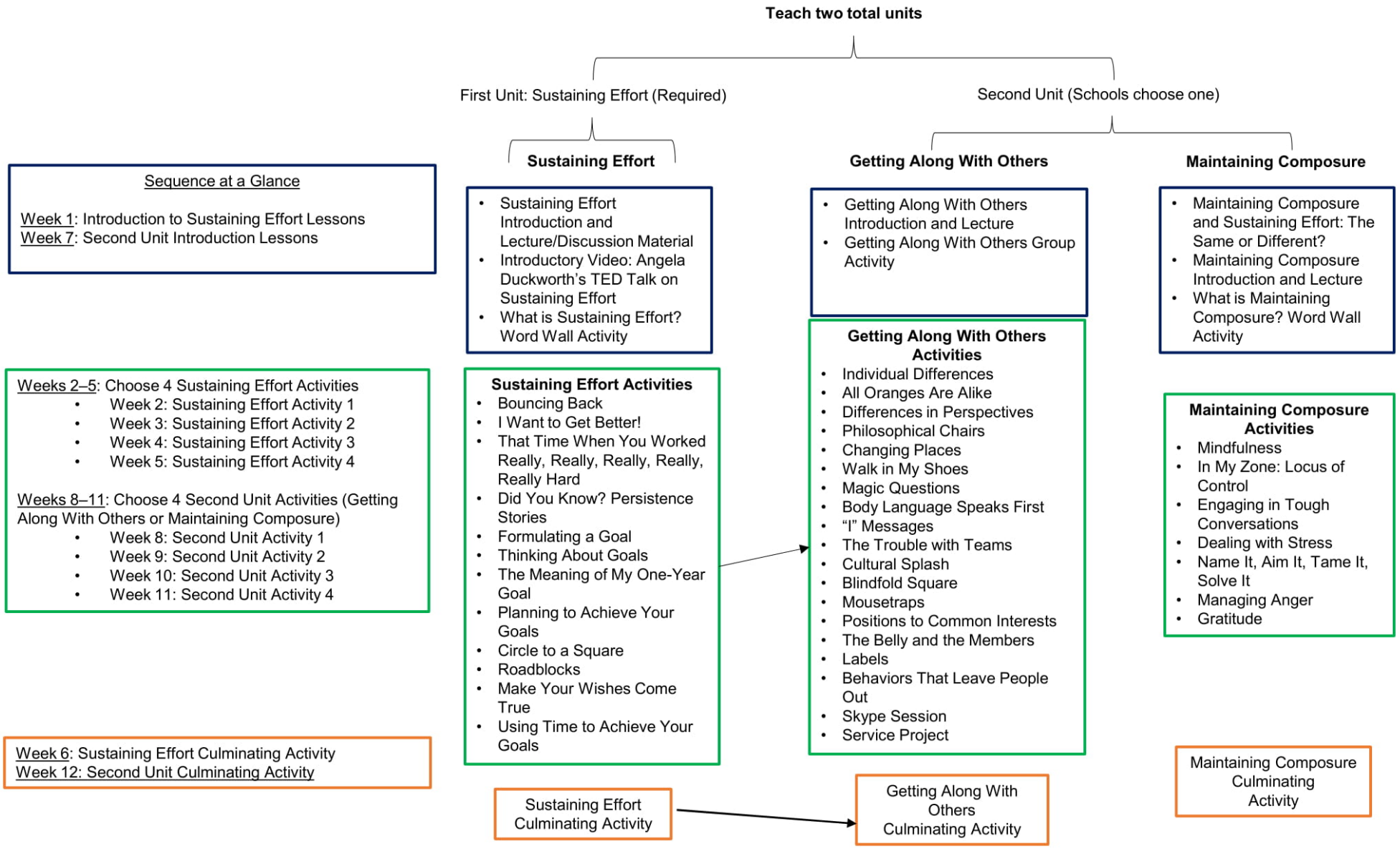
Participants

The current study involved students from Region One in South Texas and examined the potential relationships between SEL lessons and academic and behavioral outcomes. According to Region One ESC statistics, 96% of students are Hispanic, 85% are considered economically disadvantaged, 38% English learners, and 6% are migrants. Participants from this study came from a larger longitudinal sample consisting of 11,865 students from 55 middle schools where students complete an annual assessment measuring their SE skills. Students in this cohort were initially assessed when they were in seventh grade in 2019 and again when they were in eighth grade in 2020. During the 2020 school year, a subset of schools was invited to participate in an SEL implementation study. All 55 schools from the larger cohort were first categorized based on their 2019 SE skill levels (high-, medium-, and low-scoring schools). Schools from each level were then identified by Region One ESC to receive an invitation to participate. Of 18 schools initially selected, 14 opted to participate in the study. Across the 14 schools, a total of 1,444 students were assigned to the intervention group to receive SEL lessons throughout the school year.

Procedure

In the spring of 2019, all participants in the study completed the Mosaic™ by ACT®: Social Emotional Learning assessment, which measured their baseline SE skill levels and perceptions of school climate. Of those who took the initial assessment, students from 14 middle schools were assigned SEL lessons for two of three skills: Sustaining Effort, Getting Along With Others, and Maintaining Composure. Figure 1 provides a depiction of the implementation plan, and Table 1 provides skill definitions and example lessons for each skill. Based on baseline scores from the 2018–2019 school year, all schools were instructed to deliver the Sustaining Effort unit content. Facilitators were asked to implement two mandatory Sustaining Effort lessons and then choose four additional lessons from a list of eight, with lessons delivered approximately once per week starting in the fall semester. Students from all the schools completed the lessons on Sustaining Effort by February or early March of 2020. For a second unit, schools were given a choice between Getting Along With Others or Maintaining Composure. Schools were encouraged to select content for this unit based on student test scores or school priorities. In total, the intended number of lessons for the current study was six lessons on Sustaining Effort and six additional lessons on one of the two remaining skills. To receive the full dosage, students would complete a total of 12 lessons. This target was intended to provide adequate programming for each target skill without overburdening facilitators.

Figure 1. Implementation Plan for SEL Lessons



The lesson cadence for the second unit followed that of the Sustaining Effort unit; facilitators were to deliver two mandatory lessons and then select four others from a list of lessons for each skill. Thus, strong fidelity would involve each student receiving the prescribed lessons on two skills in this prescribed order. Instruction was to take place over the 2019–2020 school year. All schools were responsible for setting their implementation schedules and creating an implementation plan before starting the school year. However, the implementation of the remaining lessons on Getting Along With Others and Maintaining Composure was impacted by the COVID-19 pandemic. Nevertheless, students from nine of the schools completed some programming on Getting Along With Others by May 2020. Students from six schools completed some programming on Maintaining Composure by June 2020. Lessons for both skills were delivered via virtual instruction. Following these lessons, some students completed the Mosaic™ by ACT®: Social Emotional Learning assessment again in the spring of 2020. Sample sizes were smaller in the final assessment than the initial assessment due to the COVID-19 pandemic.

In addition to SEL programming, all schools in the intervention group planned to administer various college and career readiness programming in line with GEAR UP (Gaining Early Awareness and Readiness for Undergraduate Programs), a federal grant opportunity to improve college preparedness in students from underrepresented groups or who would be the first to attend college in their families. These services were also to be implemented throughout the school year. These services include academic enrichment, opportunities to visit colleges and shadow college students, mentoring, counseling and advising, educational field trips, family enrichment activities, financial aid counseling, financial literacy support, job shadowing, leadership development, student workshops, parent workshops, and tutoring. In some cases, students received services based on their needs, which were determined by previous assessment scores on SE skills. Although these services were not part of the SEL intervention, this programming provides important context for interpreting the study results because it may have affected the study outcomes. In support of this possibility, previous research examined GEAR UP programming with students from Region One. The study found that although Region One students scored lower on measures of academic discipline, commitment, and academic success than a national sample when programming started in Grades 7–9, they scored significantly better than the national sample by Grade 12, following the implementation of GEAR UP programming (Albert et al., 2020).

For both the SEL lessons and additional GEAR UP services, implementation differed by school. Some schools embedded SEL or GEAR UP content into core academic class time, such as during math or science classes. Other schools embedded content into elective subject area courses, such as physical education or keyboard classes. Some schools designated time during the school day for SEL skill-building initiatives, while others implemented the lessons as part of after-school programs. There was also variation in whether services were offered as universal services or targeted specifically to students with demonstrated areas for growth.

Outcomes

Students in the study completed the Mosaic™ by ACT®: Social Emotional Learning assessment twice. This assessment measures five SE skills: Sustaining Effort, Getting Along With Others, Maintaining Composure, Keeping an Open Mind, and Social Connection. In addition, the assessment measures two aspects of school climate: Relationships With School Personnel and School Safety Climate. In summary, this assessment measured several key outcomes, including a student's final SE skill levels and sense of school climate in the spring of 2020. Full details on

this assessment can be found in the technical manual (ACT, 2020). In addition to administering this assessment, we obtained data on grades for students who completed the SEL lessons, including course grades in math, English, science, and history. Further, we examined two behaviors disruptive to learning, absences and discipline incidents.

Results

Analytic Approach

Before turning to results, we examine two key components of implementation, fidelity and dosage for the SEL lessons. We also examine the amount of GEAR UP programming students received. Next, we examine overall changes in several of the primary outcomes of interest, including changes in SE skills, school climate, and grades. Examining changes in these variables provides an overall indication of student levels at each grade. Afterward, we turn to the primary analyses of interest, examining the relationships between participation in SEL lessons and each outcome of interest while accounting for implementation differences. Specifically, our primary analytic approach involved hierarchical regressions predicting key outcomes for those assigned to the SEL lessons based on the number of hours spent on SEL lessons while accounting for variability in GEAR UP programming and each outcome's initial levels.

Implementation

SEL Lesson Administration

Table 3 reports the fidelity of implementation (the degree to which the program was delivered as intended) by presenting the extent to which the implementation plan was followed across schools. In most cases, implementation approached or exceeded 80%, meaning that 80% of the schools delivered the programming as originally intended. This level of implementation can be considered high fidelity given that previous research has revealed that interventions rarely meet this threshold. Regarding the culminating activity for the additional skill (Maintaining Composure or Getting Along With Others), implementation was lower at 50%, likely due to the disruption of the pandemic. In addition to examining the lessons provided, we also determined how closely the schools followed the planned order of implementation (lessons on Sustaining Effort followed by an additional skill). In this case, eight of the 14 schools followed this order. In summary, most schools followed the original implementation plan fairly closely in terms of administering lessons for Sustaining Effort. However, implementation of the SEL lessons for the remaining skill was more disrupted due to the COVID-19 pandemic.

Table 3. Administration of SEL Lessons Based on Key Features of the Implementation Plan Across Schools

	Implemented at least one introductory lesson	Implemented culminating activity	Implemented four additional lessons
Number of schools for Sustaining Effort	14	11	10
% of schools for Sustaining Effort	100%	79%	71%
Number of schools for additional skill	12	7	10
% of schools for additional skill	86%	50%	71%

SEL Lessons Received

Despite the efforts of facilitators, students may still have chosen not to attend the lessons for any number of reasons. This possibility is particularly likely for lessons on Getting Along With Others and Maintaining Composure due to the virtual administration. Table 4 presents the average number of hours students spent on lessons for each skill and the average number of lessons received. In addition, this table presents the range of hours and lessons to demonstrate the variability in the dosage. For Getting Along With Others and Maintaining Composure, these averages and ranges reflect only the students from schools that chose to implement each skill. For instance, the average for Getting Along With Others is based on the students from schools that chose to implement Getting Along With Others lessons. In some cases, the targeted skill could not be determined based on the description provided. In those cases, we classified the activity as miscellaneous. As this table shows, students received the most programming in Sustaining Effort. However, the average is still below the six-lesson target given to the schools. Additionally, students received some instruction on Getting Along With Others and Maintaining Composure, but the average number of lessons fell short of the six-lesson goal for each skill. In total, students received an average of 8.5 lessons, which is a dosage of 71% of the target of 12 total lessons. In sum, although the COVID-19 pandemic disrupted implementation, students received a relatively high dosage of lessons on Sustaining Effort (i.e., close to the intended number) and a somewhat lower dosage of lessons on the remaining skills.

Table 4. Number of Lessons Received on Average for Each Skill and All Skills

	Sustaining Effort	Getting Along With Others	Maintaining Composure	Miscellaneous Lessons	Total Received
N	1,444	952	447	1,444	1,444
Range of Hours	0-8.5	0-6	0-6	0-3	0-12.3
Average Hours	2.8	2.2	2.2	0.2	5.3
Range of Lessons	0-11	0-8	0-11	0-10	0-29
Average Number of Lessons	4.4	3.6	2.8	0.1	8.5

Other GEAR UP Services Received

In addition to these services, students received various programming through GEAR UP initiatives. This programming included activities such as educational field trips, financial aid counseling, job shadowing, and student workshops. Table 5 presents the lessons received across various types of activities and the average time spent on each type, as well as the range of time and lessons to show the variability in programming received. As this table shows, students received a substantial amount of additional programming, with an average of almost 29 hours spent on these activities. Of these activities, the three activities students spent the most time on were student workshops, counseling or advising, and college visits (average hours = 13.0, 7.6, and 1.8, respectively).

In addition to recording overall time, we coded these additional activities as either related or unrelated to SEL. To code these activities, we sent a list of the activity descriptions to each facilitator and asked them to indicate if the activity was related to SEL. The authors then reviewed these ratings and checked for consistency across campuses, making changes based

on consensus when deemed necessary. Further, we also broke these activities down based on if they included parents. We specifically coded for parental involvement in activities because academic, behavioral, social, and emotional outcomes are impacted by family engagement (Brooks & Lambert, 2019). As such, the degree of parental involvement may have impacted student outcomes in the current study. We coded any activity involving a parent workshop or that mentioned parents in the description as involving parents. In contrast to these additional GEAR UP services, none of the SEL lessons examined in this study specifically involved parents. As Table 5 shows, students also received a substantial amount of SEL-related programming through GEAR UP, with an average of 7.10 hours exceeding the average time of 5.3 hours spent on the lessons from this study. It is important to keep this time spent on SEL-related programming in mind when interpreting this study's results. In particular, we only have records of the additional activities for students assigned to the SEL lessons. Based on the number of additional services received by these students, we would expect those who did not receive the SEL lessons to have nevertheless received a substantial amount of SEL-related programming through GEAR UP.

Table 5. Dosage of GEAR UP Services Received on Average for Those Assigned to SEL Lessons

	N	Range of hours	Average hours	Range of lessons	Average number of lessons
Total Number Lessons	1,444	0.5-134.5	28.8	1-55	14.0
SEL Related	1,444	0-73.8	7.1	0-14	3.1
Parent Related	1,444	0-24.8	1.2	0-10	1.0

Overall Change

Change in SE Skills from 2019 to 2020

Turning to our primary outcomes of interest, Table 6 presents changes in student SE skills broken down for schools that were and were not assigned to the SEL lessons. As this table shows, students decreased in several of the skills from 2019 to 2020. However, these decreases tended to be small. These skills included Sustaining Effort, $F(1, 2848) = 4.75$, $p = .03$, $\eta_p^2 = .002$; Getting Along With Others, $F(1, 2848) = 21.46$, $p < .01$, $\eta_p^2 = .007$; Keeping an Open Mind, $F(1, 2848) = 53.51$, $p < .01$, $\eta_p^2 = .018$; and Social Connection, $F(1, 2848) = 65.90$, $p < .01$, $\eta_p^2 = .023$. For Maintaining Composure, scores remained constant from 2019 to 2020: $F(1, 2848) = .369$, $p = .54$, $\eta_p^2 < .001$. These patterns were similar regardless of whether schools were assigned to the SEL lessons, with the interaction between inclusion in the study and change in skills failing to reach significance in all cases (Fs < 3.7, ps > .06). Although the goal would be for students to increase their SE skills over time, these decreases are unsurprising given developmental trends for this age group, in which students often have declines in SE skills around Grade 8 or 9 and then experience gradual increases (Soto, John, Gosling, & Potter, 2011; West et al., 2020).

Table 6. SE Percentiles for 2019 and 2020

	Schools not in the study (*n* = 2,074)		Schools in the study (*n* = 776)	
	2019	2020	2019	2020
Sustaining Effort	53.69 (29.10)	53.16 (29.53)	52.07 (28.90)	50.22 (29.88)
Getting Along With Others	59.30 (30.56)	56.43 (30.56)	56.18 (29.76)	53.81 (30.61)
Maintaining Composure	53.32 (30.04)	52.82 (29.84)	50.93 (29.69)	50.75 (29.75)
Keeping an Open Mind	55.37 (28.37)	50.06 (29.10)	52.02 (28.01)	48.91 (28.64)
Social Connection	52.15 (29.28)	47.76 (29.75)	49.93 (28.85)	45.46 (29.73)

Note: Standard deviations are presented in parentheses.

Change in School Climate from 2019 to 2020

In addition to grades, another key outcome was school climate. Table 7 presents changes to climate for schools that were and were not assigned to the SEL lessons. As this table shows, school climate tended to remain constant over time. For relationships, scores were stable from 2019 to 2020: $F(1, 2847) = .51$, $p = .47$, $\eta_p^2 < .001$. Additionally, safety remained constant from 2019 to 2020: $F(1, 2848) = .07$, $p < .79$, $\eta_p^2 < .001$. These scores were similarly constant for students in schools assigned to the SEL lessons and those from schools that were not assigned to the lessons. In neither case was the interaction between inclusion in the study and change in climate significant [relationships: $F(1, 2847) = .10$, $p = .75$, $\eta_p^2 < .001$; safety: $F(1, 2848) = 1.70$, $p = .19$, $\eta_p^2 = .001$].

Table 7. School Climate Scores for 2019 and 2020

	Schools not in the study		Schools in the study	
	2019	2020	2019	2020
Relationships	4.07 (0.59)	4.07 (0.62)	3.97 (0.57)	3.98 (0.60)
Safety	4.31 (0.71)	4.32 (0.74)	4.22 (0.67)	4.20 (0.70)

Note: Standard deviations are presented in parentheses, and scores range from 1 to 6 for each outcome.

Change in Course Grades from 2019 to 2020

Finally, we examined changes in average course grades from 2019 to 2020. Grades in 2020 were given during the COVID-19 pandemic. Table 8 presents changes to average course grades, shown in percentages, in math, English, history, and science for those who were in schools assigned to SEL lessons. We did not obtain grade data for students from schools that did not participate in this study. As this table shows, grades were fairly consistent from 2019 to 2020. Small decreases did reach significance for three subjects. For English, grades decreased on average from 2019 to 2020: $t(1179) = -4.29$, $p < .01$, $d = -.13$. Additionally, history grades decreased on average from 2019 to 2020: $t(1199) = -5.32$, $p < .01$, $d = -.15$. Further, science grades decreased on average from 2019 to 2020: $t(1207) = -3.71$, $p < .01$, $d = -.11$. In contrast, math grades remained constant from 2019 to 2020: $t(955) = -1.34$, $p = .18$, $d = -.04$.

Table 8. Course Grades for 2019 and 2020 for Schools in the Study

	2019	2020
Math	79.90 (9.08)	80.24 (9.00)
English	83.13 (8.98)	82.19 (8.88)
History	85.29 (7.74)	84.27 (8.79)
Science	84.60 (8.75)	83.88 (9.37)

Note: Standard deviations are presented in parentheses, and values shown are percentages out of a possible 100.

Effects of Participation in SEL Lessons

Predictors of 2020 SE Skill Scores

The next set of analyses focuses only on students in the intervention group who received additional SEL programming during the 2019–2020 school year. We were interested in determining how 2019 SE skill scores, time spent on SEL lessons, and time spent on GEAR UP programming relate to 2020 SE skill percentile scores. Table 9 reports correlations between SE skills in 2020 and SE skills in 2019, total hours of additional GEAR UP activities in 2020, and time spent on lessons for each skill. As this table shows, 2019 percentile scores for each SE skill were most strongly related to the 2020 percentile scores. In addition, GEAR UP hours were related to SE percentile scores in 2020. In contrast, hours spent on SEL lessons did not consistently relate to SE percentiles in 2020. In one case, time spent on Sustaining Effort lessons in 2020 was negatively correlated with Sustaining Effort percentiles in 2020. Given the relationship between Sustaining Effort percentiles each year, one potential explanation for this finding is that students who had lower initial scores on Sustaining Effort were provided with additional practice on this skill. In support of this possibility, Sustaining Effort percentiles in 2019 were also negatively related to time spent on Sustaining Effort lessons in 2020 ($r = -.09$, $p = .03$).

Table 9. Correlations Between Each SE Skill, GEAR UP Hours, and Time Spent on Relevant Lessons

	N	Skill percentile in 2019	GEAR UP hours in 2020	Time on SEL lessons for applicable skill
Sustaining Effort percentile in 2020	386	.58*	.16*	−.16*
Getting Along With Others percentile in 2020	386	.58*	.12*	0.06
Maintaining Composure percentile in 2020	386	.59*	.12*	0.01

Note: *$p < .05$

To determine if hours spent on SEL lessons predict final SE percentile scores, we fit three hierarchical regression models to predict the final level of each of the target skills. In each case, the percentile score on each skill in the spring of 2020 served as the outcome, and hours spent on SEL lessons targeting that skill was the predictor. These analyses were restricted to students from the 14 schools assigned to implement the SEL lessons. In addition, each model controlled for students' initial SE skill levels in 2019 and hours spent on GEAR UP activities. The key results for these regression models are presented in Table 10. As these models show, the strongest predictors of SE skill percentile scores in 2020 were students' initial percentile scores in 2019. In contrast, the other variables generally did not predict percentile scores in 2020.

For Sustaining Effort, percentile scores in 2019 accounted for a significant amount of variance in percentile scores in 2020 ($R^2 = .33$, $F[1, 384] = 191.64$, $p < .01$). Adding time spent on GEAR UP activities into the model accounted for a small amount of additional variance ($R^2 = .34$, $\Delta R^2 = .007$, $\Delta F = 4.11$, $p = .04$). However, adding time spent on Sustaining Effort lessons into the model did not account for a significant amount of additional variance ($R^2 = .35$, $\Delta R^2 = .007$, $\Delta F = 3.83$, $p = .05$) despite marginal significance. For Getting Along With Others, percentile scores in 2019 accounted for a significant amount of variance in percentile scores in 2020 ($R^2 = .34$, $F[1, 384] = 197.08$, $p < .01$). Adding time spent on GEAR UP activities into the model did not account for a significant amount of additional variance ($R^2 = .34$, $\Delta R^2 = .004$, $\Delta F = 2.61$, $p = .11$). Similarly, adding time spent on Getting Along With Others lessons into the model did not account for a significant amount of additional variance ($R^2 = .34$, $\Delta R^2 = .003$, $\Delta F = 1.80$, $p = .18$). For Maintaining Composure, percentile scores in 2019 accounted for a significant amount of variance in percentile scores in 2020 ($R^2 = .34$, $F[1, 384] = 200.55$, $p < .01$). Adding time spent on GEAR UP activities into the model did not account for a significant amount of additional variance ($R^2 = .35$, $\Delta R^2 = .003$, $\Delta F = 2.03$, $p = .16$). Similarly, adding time spent on Maintaining Composure lessons into the model did not account for a significant amount of additional variance ($R^2 = .35$, $\Delta R^2 = .003$, $\Delta F = 1.98$, $p = .16$).

Table 10. Predicting Final SE Percentile Scores for Target Skills Based on Hours on Lessons, Initial Levels, and GEAR UP Hours

Model	Predictor	β	*t*	Significance
Sustaining Effort percentile score in 2020				
1	Sustaining Effort percentile 2019	.58	13.84	<.001
2	Sustaining Effort percentile 2019	.57	13.48	<.001
2	GEAR UP hours in 2020	.08	2.03	.04
3	Sustaining Effort percentile 2019	.56	13.43	<.001
3	GEAR UP hours in 2020	.05	1.92	.23
3	Time on Sustaining Effort lessons	−.09	−1.96	.05
Getting Along With Others percentile score in 2020				
1	Getting Along With Others percentile 2019	.58	14.04	<.001
2	Getting Along With Others percentile 2019	.58	13.85	<.001
2	GEAR UP hours in 2020	.07	1.62	.11
3	Getting Along With Others percentile 2019	.58	13.92	<.001
3	GEAR UP hours in 2020	.04	.90	.37
3	Time on Getting Along With Others lessons	.06	1.34	.18
Maintaining Composure percentile score in 2020				
1	Maintaining Composure percentile 2019	.59	14.16	<.001
2	Maintaining Composure percentile 2019	.58	13.97	<.001
2	GEAR UP hours in 2020	.06	1.43	.16
3	Maintaining Composure percentile 2019	.58	14.02	<.001
3	GEAR UP hours in 2020	.08	1.76	.08
3	Time on Maintaining Composure lessons	.06	1.41	.16

Predictors of 2020 School Climate Scores

Table 11 reports correlations between the two dimensions of school climate (Relationships With School Personnel and School Safety) in 2020 and school climate in 2019, total hours of additional GEAR UP activities in 2020, and total hours spent on SEL lessons. As with the SE skills, initial scores in 2019 were most strongly related to both dimensions of school climate in 2020. Additionally, GEAR UP hours in 2020 were positively related to School Safety in 2020. In contrast, time spent on SEL lessons was unrelated to final levels of either dimension of school climate.

Table 11. Correlations Between School Climate, Hours on Lessons, Initial Scores, and GEAR UP Hours

	N	Scale score in 2019	GEAR UP hours in 2020	Total time on SEL lessons
Relationships with School Personnel in 2020	385	.40*	.03	.02
School Safety in 2020	386	.41*	.14*	.00

Note: $*p < .05$

To determine if these variables predict the two aspects of school climate in 2020, we fit two hierarchical regression models similar to those used to predict percentile scores. Specifically, we predicted each school climate component in 2020 (i.e., Relationships With School Personnel and School Safety) from the total number of SEL lesson hours students received. In addition, initial levels of school climate in 2019 and time spent on GEAR UP activities in 2020 were added to each model to account for these variables. Results from these models are presented in Table 12. As these models show, initial levels of school climate dimensions in 2019 most strongly predict levels of both components in 2020. In addition, hours spent on GEAR UP activities predicted School Safety in 2020 when accounting for School Safety in 2019.

For Relationships With School Personnel, scale scores in 2019 accounted for a significant amount of variance in scale scores in 2020 ($R^2 = .16$, $F[1, 383] = 72.04$, $p < .01$). Adding time spent on GEAR UP activities into the model did not account for a significant amount of additional variance ($R^2 = .16$, $\Delta R^2 < .001$, $\Delta F = 0.03$, $p = .87$). Similarly, adding time spent on SEL lessons did not account for a significant amount of additional variance ($R^2 = .16$, $\Delta R^2 = .002$, $\Delta F = .88$, $p = .35$). For School Safety, scale scores in 2019 accounted for a significant amount of variance in scale scores in 2020 ($R^2 = .17$, $F[1, 384] = 78.07$, $p < .01$). Adding time spent on GEAR UP activities into the model accounted for a small amount of additional variance ($R^2 = .19$, $\Delta R^2 = .019$, $\Delta F = 9.17$, $p < .01$). However, adding time spent on SEL lessons did not account for a significant amount of additional variance ($R^2 = .19$, $\Delta R^2 = .003$, $\Delta F = 1.23$, $p = .27$).

Table 12. Predicting Final School Climate Based on Hours on Lessons, Initial Levels, and GEAR UP Hours

Model	Predictor	β	*t*	Significance
Relationships With School Personnel scale scores in 2020				
1	Relationships 2019	.40	8.49	<.001
2	Relationships 2019	.40	8.45	<.001
2	GEAR UP hours in 2020	.01	0.17	.87
3	Relationships 2019	.40	8.48	<.001
3	GEAR UP hours in 2020	.02	0.34	.74
3	Time on SEL lessons	.04	0.94	.35
School Safety scale scores in 2020				
1	Safety 2019	.41	8.84	<.001
2	Safety 2019	.41	8.93	<.001
2	GEAR UP hours in 2020	.14	3.03	<.01
3	Safety 2019	.41	8.98	<.001
3	GEAR UP hours in 2020	.15	3.18	<.01
3	Time on SEL lessons	.05	1.11	.27

Predictors of 2020 Course Grades

Table 13 reports correlations between course grades in 2020 and course grades in 2019, total hours of additional GEAR UP activities in 2020, and total hours spent on SEL lessons. As this table shows, grades in 2019 are most strongly related to grades in 2020. In addition, GEAR UP hours in 2020 are significantly correlated with course grades for three of the four subjects. Further, time spent on SEL lessons is significantly correlated with grades for three of the four subjects.

Table 13. Correlations Between Course Grades in 2020, Hours on SEL Lessons, Course Grades in 2019, and GEAR UP Hours

	N	Grades in 2019	GEAR UP hours in 2020	Total time on SEL lessons
Math	954	.63*	.17*	.05
English	1,178	.65*	.09*	.06*
History	1,198	.69*	.04	.07*
Science	1,206	.72*	.15*	.06*

Note: $*p < .05$

To determine if these variables predicted course grades in 2020, we fit four hierarchical regression models. These models were similar to those previously described, predicting grades in 2020 for each core class from the total number of hours spent on SEL lessons. In addition, grades in 2019 and time spent on GEAR UP activities in 2020 were added to each model to account for these variables. Table 14 presents the results of these analyses. As this table shows, grades in 2019 were the strongest predictors of grades in 2020. For math, time spent on SEL lessons remained a significant, positive predictor when accounting for initial grades and GEAR UP activities. Additionally, GEAR UP hours remained a significant, positive predictor of math and English grades when accounting for initial grades and SEL hours.

For math, grades in 2019 accounted for a significant amount of variance in student grades in 2020 ($R^2 = .40$, $F[1, 952] = 627.97$, $p < .01$). Adding time spent on GEAR UP activities into the model accounted for a small amount of additional variance ($R^2 = .40$, $\Delta R^2 = .003$, $\Delta F = 5.28$, $p = .02$). Additionally, adding time spent on SEL lessons into the model accounted for a small amount of additional variance ($R^2 = .41$, $\Delta R^2 = .008$, $\Delta F = 13.28$, $p < .01$). For English, student grades in 2019 accounted for a significant amount of variance in student grades in 2020 ($R^2 = .42$, $F[1, 1176] = 850.35$, $p < .01$). Adding time spent on GEAR UP activities into the model accounted for a small amount of additional variance ($R^2 = .43$, $\Delta R^2 = .005$, $\Delta F = 11.01$, $p = .01$). However, adding time spent on SEL lessons into the model did not account for a significant amount of additional variance ($R^2 = .43$, $\Delta R^2 < .001$, $\Delta F = 0.10$, $p = .75$). For history, student grades in 2019 accounted for a significant amount of variance in student grades in 2020 ($R^2 = .47$, $F[1, 1196] = 1057.43$, $p < .01$). Adding time spent on GEAR UP activities into the model did not account for a significant amount of additional variance ($R^2 = .47$, $\Delta R^2 = .001$, $\Delta F = 3.23$, $p = .08$). Similarly, adding time spent on SEL lessons into the model did not account for a significant amount of additional variance ($R^2 = .47$, $\Delta R^2 = .002$, $\Delta F = 3.40$, $p = .07$). For science, student grades in 2019 accounted for a significant amount of variance in student grades in 2020 ($R^2 = .52$, $F[1, 1204] = 1309.30$, $p < .01$). Adding time spent on GEAR UP activities into the model did not account for a significant amount of additional variance ($R^2 = .52$, $\Delta R^2 < .001$, $\Delta F = 0.03$, $p = .87$). Similarly, adding time spent on SEL lessons did not account for a significant amount of additional variance ($R^2 = .52$, $\Delta R^2 < .001$, $\Delta F = 0.98$, $p = .32$).

Table 14. Predicting 2020 Grades Based on SEL Hours on Lessons, Initial Grades, and GEAR UP Hours

Model	Predictor	β	*t*	Significance
Math grades in 2020				
1	Math grades in 2019	.63	25.06	<.001
2	Math grades in 2019	.62	24.25	<.001
2	GEAR UP hours in 2020	.06	2.30	.02
3	Math grades in 2019	.62	24.43	<.001
3	GEAR UP hours in 2020	.08	3.00	<.01
3	Time on SEL lessons	.09	3.64	<.001
English grades in 2020				
1	English grades in 2019	.65	29.16	<.001
2	English grades in 2019	.65	29.19	<.001
2	GEAR UP hours in 2020	.07	3.32	.001
3	English grades in 2019	.65	28.94	<.001
3	GEAR UP hours in 2020	.07	3.31	.001
3	Time on SEL lessons	.01	0.32	.75
History grades in 2020				
1	History grades in 2019	.69	32.52	<.001
2	History grades in 2019	.69	32.55	<.001
2	GEAR UP hours in 2020	-.04	-1.8	.07
3	History grades in 2019	.69	32.44	< .001
3	GEAR UP hours in 2020	-.03	-1.36	.17
3	Time on SEL lessons	.04	1.84	.07
Science grades in 2020				
1	Science grades in 2019	.72	36.18	<.001
2	Science grades in 2019	.72	35.34	<.001
2	GEAR UP hours in 2020	.003	0.17	.87
3	Science grades in 2019	.72	35.03	<.001
3	GEAR UP hours in 2020	.01	0.39	.70
3	Time on SEL lessons	.02	1.00	.32

Predictors of 2020 Absences and Discipline Incidents

Table 15 reports correlations between absences in 2020 and absences in 2019, total hours of additional GEAR UP activities in 2020, and total hours spent on SEL lessons. As this table shows, absences in 2020 were most strongly related to absences in 2019. In addition, GEAR UP hours in 2020 were related to fewer absences in 2020. However, time spent on SEL lessons was not significantly related to absences in 2020.

Table 15. Correlations Between Absences in 2020, Absences in 2019, Time on SEL Lessons, and GEAR UP Hours

	N	*Absences in 2019*	*GEAR UP hours in 2020*	*Total time on SEL lessons*
Absences in 2020	1,282	.64*	−.20*	.04

Note: *$p < .05$

To determine if these variables predicted absences in 2020, we fit a hierarchical regression model. This model predicted absences in 2020 from the total number of hours spent on SEL lessons. In addition, absences in 2019 and time spent on GEAR UP activities in 2020 were added to each model to account for these variables. Table 16 presents the results of these analyses. As this table shows, absences in 2019 were the strongest predictors of absences in 2020. Student absences in 2019 accounted for a significant amount of variance in student absences in 2020 ($R^2 = .40$, $F[1, 1280] = 862.63$, $p < .01$). Adding time spent on GEAR UP activities into the model accounted for a significant amount of additional variance ($R^2 = .44$, $\Delta R^2 = .034$, $\Delta F = 77.99$, $p < .01$). However, adding time spent on SEL lessons into the model did not account for a significant amount of additional variance despite the trend in the expected direction ($R^2 = .44$, $\Delta R^2 = .001$, $\Delta F = 3.01$, $p = .08$).

Table 16. Predicting 2020 Absences Based on SEL Hours on Lessons, Absences in 2019, and GEAR UP Hours

Model	Predictor	β	*t*	Significance
Absences in 2020				
1	Absences 2019	.64	29.37	<.001
2	Absences 2019	.63	30.05	<.001
2	GEAR UP hours in 2020	-.19	-8.83	<.001
3	Absences 2019	.63	30.11	<.001
3	GEAR UP hours in 2020	-.20	-8.97	<.001
3	Time on SEL lessons	-.04	-1.74	.08

Further, based on previously established guidelines, we broke the participants from schools who implemented the SEL lessons into three groups (Attendance Works, n.d.). The groups included those with acceptable absentee records (fewer than 10 days missed), habitual absentee records (at least 10 days but fewer than 18), and chronic absentee records (more than 18 days missed). Table 17 reports these results. As this table shows, most students fell into the acceptable range

of absences in 2020, with very few students in the chronic range. To examine potential differences in SEL lesson hours based on absentee group, we ran a one-way ANOVA with SEL lesson hours as the outcome and absentee group as the independent variable. As reported in Table 17, no differences occurred based on absentee group.

Table 17. Differences in SEL Lesson Hours Based on Absenteeism

	Acceptable			Habitual			Chronic			
	M	*SD*	*N*	*M*	*SD*	*N*	*M*	*SD*	*N*	*F*
SEL lesson hours	5.54	3.39	1,222	5.13	2.84	61	5.33	3.68	8	.429

Finally, we examined district discipline incidents. Given relatively low variability in discipline incidents, we dichotomized this variable as either zero incidents or one or more incidents. We fit a binary logistic regression model to predict discipline incidents in 2020 based on hours spent on SEL lessons. We also controlled for discipline incidents in 2019 and hours spent on GEAR UP lessons in 2020. Having at least one discipline incident in 2020 was coded as one, and not having an incident was coded as zero. The overall model was significant: χ^2 (3) = 211.02, p = .01. As Table 18 shows, the odds of a student who had a discipline incident in 2019 having a discipline incident in 2020 were 11.82 times higher than for a student who did not have a discipline incident in 2019. Additionally, the odds of a student who had more hours of SEL lessons in 2020 having a discipline incident in 2020 were lower than for a student who did not have as many hours of SEL lessons. In contrast, the odds of a discipline incident in 2020 were not significantly predicted by GEAR UP hours in 2020. In sum, as expected, students who had a discipline incident in 2019 were more likely to have a discipline incident in 2020, but those who completed more hours of SEL lessons were less likely to have a discipline incident in 2020.

Table 18. Predicting 2020 Discipline Incidents Based on SEL Hours on Lessons, Initial Levels, and GEAR UP Hours

Model	Predictor	*B*	*Wald*	*Significance*	*Exp(β)*
Discipline Incidents 2020					
1	Discipline incidents 2019	2.44	194.80	<.001	11.41
2	Discipline incidents 2019	2.42	192.69	<.001	11.30
2	GEAR UP hours in 2020	-0.004	1.81	.18	1.00
3	Discipline incidents 2019	2.47	194.29	<.001	11.82
3	GEAR UP hours in 2020	-0.01	3.31	.07	0.99
3	Time on SEL lessons	-0.06	5.43	.02	0.94

Discussion

The current study examined how the implementation of SEL lessons affected a group of primarily Latinx students while accounting for other services these students were receiving. Initially, 14 schools were selected to implement SEL lessons throughout the 2019–2020 school year. In the spring of 2020, COVID-19 caused schools to close, and a shift to online learning was required. Despite this disruption, dedicated facilitators worked to implement the SEL lessons online and continued the study. With this effort, the facilitators delivered much of the initially intended programming, resulting in fairly high fidelity.

Although the facilitators provided many lessons, the actual dosage of lessons was relatively low. Overall, students received an average of 8.5 lessons, or a dosage of 71% of the 12-lesson target. Variability in the dosage was also high due to some students attending far fewer lessons and others attending far more. This low dosage may have reduced the effects of the SEL lessons. Still, even under typical conditions, most studies report suboptimal implementation (Durlak & DuPre, 2008). As such, the dosage of lessons received in the current study seems reasonable, especially considering the difficulty monitoring and enforcing attendance in an online environment.

Nevertheless, the overall number of the SEL lessons was relatively small when compared to the amount of other programming students in this study received. In particular, many activities were offered as part of GEAR UP, with students attending an average of close to 29 hours of activities, including around seven hours of SEL-related activities. In comparison, students received an average of around five hours on the SEL lessons. Additionally, students all received a substantial amount of instruction on academic subjects and electives. Although we did not obtain records of these hours, a survey conducted by the U.S. Department of Education found that in 2007–2008, students spent an average of 21.9 hours on instruction for core academic subjects and 31.2 hours on instruction in total each week (U.S. Department of Education, 2008). Additionally, the minimum amount of instructional time per school year in Texas was 1,260 hours in 2018 (Education Commission of the States, 2020). Further, in the current study, some schools prioritized academic instruction due to the disruption of COVID-19. Within the context of all this programming and instruction, five hours spent on SEL lessons spread throughout the year is a relatively small amount. Nevertheless, several results of the current study are promising.

One promising result of the current study was the relative consistency in key outcomes from 2019 to 2020. Despite the shift to online learning, school climate scores in terms of safety and relationships remained constant across this time. Additionally, scores for Maintaining Composure remained constant across this time, while scores on the remaining SE skills showed slight declines. However, larger and more consistent declines in skills may have been expected based on developmental trends showing declines in SE skills within this age range (West et al., 2020). Additionally, grades in three courses declined, but these effects were small, with the largest decline being around 1% in history. Here also, larger declines may have been expected based on recent research by Curriculum Associates (2021) showing that fewer students are ready for grade-level work during COVID-19 than were in the three previous years. Curriculum Associates (2021) also found that COVID-19 most impacted students from underserved communities and that the impact was larger for math than reading. The current study, in contrast, involved a group of primarily Latinx learners who might also be described as underserved and found math grades remained constant from 2019 to 2020. Although this consistency is promising, the current study cannot rule out the possibility that more leniency was

given while grading in 2020. Still, even when increased leniency is considered, it does not explain consistency in the other outcomes.

Another promising result from the current study was the benefits associated with GEAR UP programming. Hours spent on GEAR UP activities in 2020 significantly predicted higher grades in math and English in 2020. Additionally, hours spent on GEAR UP activities significantly predicted greater Sustaining Effort percentiles in 2020 and School Safety in 2020. Finally, GEAR UP activities significantly predicted fewer absences in 2020. These relationships were demonstrated in all of these cases while controlling for initial levels of these outcomes in 2019. These results are consistent with previous research showing the benefits of GEAR UP programming (Albert et al., 2020).

Although somewhat mixed, several promising results were also found for the SEL lessons. Following the SEL lessons, students reacted positively, saw value in these lessons, and reported greater content knowledge and the ability to apply lesson content in and outside the classroom (**Brief 2**). Yet relationships between these lessons and the more long-term outcomes reported in the current document are mixed. Hours spent on SEL lessons did not significantly predict several outcomes, including final levels of SE skills and school climate. Still, in most cases, the results of the regression models were trending in the expected direction. Further, in two cases (math grades in 2020 and odds of having a discipline incident in 2020), hours spent on SEL lessons helped predict target outcomes. Replicating these results under a more traditional instructional setting is an important next step for research. Nevertheless, these initial results are promising given the low dosage of lessons and the disruption faced due to COVID-19.

Additionally, the full impact of these lessons may become more apparent when outcomes are examined after a longer delay. According to Yeager & Walton (2011), understanding the long-term influence of an intervention requires an understanding of how that intervention influences factors already in place at school, such as peer relationships. For instance, the SEL lessons on Getting Along With Others in the current study may have influenced students' relationships with their teachers or peers. These influences, in turn, could lead to greater benefits over time. Indirect support for this possibility comes from previous research with students from Region One (Albert et al., 2020). In this study, GEAR UP programming took time to produce change, with larger benefits shown over time. As such, directly examining the long-term effects of the SEL lessons from the current study is an important direction for future research, especially because the outcomes in the current study were examined shortly after students were given the lessons (e.g., Maintaining Composure lessons were not finished until June for some students). Related to this point, certain outcomes in the current study, such as school climate and student SE skills, may be expected to change more gradually. In contrast, outcomes related to more immediate behavior, such as discipline incidence, may be expected to respond more quickly to the SEL lessons. As such, the relationship between SEL lessons and discipline incidents in 2020 may be considered a particularly promising finding.

Taken together, these results and the results of surveys conducted for this study underscore several important implications for SEL programming. First, parents and educators generally have positive views about SEL programming (**Brief 1** and **Brief 5**). Additionally, students in the current study reacted positively to the SEL lessons (**Brief 2**). In some cases, time spent on the SEL lessons predicted more distal outcomes despite the low dosage of programming. These promising results show that all relevant stakeholders see value in SEL programming, but time

and effort are required to provide the sustained implementation of programming that may be necessary to produce long-term benefits to students. Increasing the amount of programming is an important next step for future research. A greater emphasis on SEL programming is also consistent with a whole-child approach to education that goes beyond instruction on core academic content areas. Findings from the current study also underscore the importance of a structured implementation plan and continued monitoring of the fidelity and dosage of implementation.

Conclusions

This research project, in collaboration with Region One ESC, provides the following main conclusions:

- Parents, students, and educators see value in SEL programming but need resources to implement structured SEL programming (**Briefs 1**, **Brief 2** and **Brief 5**).
- In the current study, the SEL activities were designed to follow SAFE recommendations, and the fidelity of implementation was relatively high, while the dosage was somewhat lower, and there was a lot of variability in this dosage.
- Despite the low dosage, hours spent on the SEL lessons helped predict two of the target outcomes: improved math grades and decreased odds of a disciplinary incident in 2020.
- Replicating these results with a more traditional instructional approach and increasing the amount of SEL programming are important next steps for future research.
- Students in this study received a greater amount of programming through GEAR UP activities, and hours spent on these activities predicted several key outcomes, including improved grades in math and English, increased Sustaining Effort percentiles, increased school safety, and a lower rate of absences in 2020.
- A greater amount of SEL programming may also be necessary for associations between this programming and certain student outcomes like school climate.

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ACT Center for Equity in Learning

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About Region One Education Service Center

The Region One Education Service Center is part of a state-wide system of 20 regional education service centers created in 1965 by the 59th Texas Legislature to assist school districts across the state. Originally slated to work with school districts as a media center, the role of the education service center has expanded to work alongside school districts to carry out the three main objectives as stipulated in the TEC §8.002: to assist school districts in improving student performance in each region of the system; enable school districts to operate more efficiently and economically; and implement initiatives assigned by the legislature or commissioner. Located in South Texas on the United States/Mexico border, Region One ESC serves 38 school districts and 10 charter school systems in the eight county areas of Brooks County, Cameron County, Hidalgo County, Jim Hogg County, Starr County, Webb County, Willacy County, and Zapata County.
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