QUEST Implementation & K-5 Student Outcomes (2024)

Study Type: ESSA Level III

Prepared for:
ProSolve

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Executive Summary

ProSolve contracted with LearnPlatform by Instructure (LearnPlatform), a third-party edtech research company, to examine whether implementation of QUEST was associated with K–5th grade student social emotional learning (SEL) outcomes. LearnPlatform designed the study to satisfy Level III requirements according to the Every Student Succeeds Act (ESSA, 2015).

Study Sample and Measures

The study included 806 program facilitators and their students in K–5th grade across 14 California school districts. Data for the study included QUEST implementation metrics, facilitator and student survey responses, and publicly available district demographics and prior year English language arts (ELA) achievement.

Researchers used three metrics to characterize QUEST program usage: 1) the number of units completed, 2) use of implementation resources (e.g., printed or online materials, pacing guides), and 3) use of supplemental SEL lessons (among grade 3—5 students only).

Analytic Approach

Researchers used descriptive statistics to summarize participant characteristics and QUEST implementation. To examine whether engagement with QUEST was associated with facilitator and student perception of SEL outcomes, researchers conducted *t*-tests, partial correlations, and multilevel models. All correlational analyses included covariates (i.e., pre-test results, facilitator characteristics, and district demographics) to minimize selection bias.

Key Findings
After implementing QUEST, facilitators reported **improvements in K—5 student SEL proficiency.** According to facilitators, K–2 students showed the largest gains in relationship skills while grade 3–5 students improved the most with goal setting.
Use of more **implementation resources** was associated with better **K–2 student decision-making** (i.e., being able to negotiate and compromise) and **grade 3–5 student relationship skills** (i.e., getting along with others and having empathy).
Completion of more **QUEST units** and greater usage of **supplemental SEL lessons** were both associated with better **grade 3—5 student soft skills for career readiness**.
In grade 3—5 classrooms where facilitators used **supplemental SEL lessons**, students reported having better **collaborative skills** (i.e., sharing ideas and including others).

Note: These results were statistically significant at the $p < 0.05$ level.

Conclusions

This study satisfies ESSA evidence requirements for Level III (*Promising Evidence*) given five positive, statistically significant correlational findings.

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Introduction

QUEST is a student-centered social emotional learning (SEL) curriculum that addresses gaps in SEL and 4Cs skills[1] within a nurturing, low-pressure environment. The training and program materials empower educators to facilitate immersive problem-solving experiences, actively cultivating essential student skills for lifelong learning and career readiness (see logic model in Appendix A; Hunt, Green, & Henschel, 2024).

As part of their ongoing efforts to demonstrate the effectiveness of QUEST, ProSolve contracted with LearnPlatform by Instructure (LearnPlatform), a third-party edtech research company, to examine whether implementation of QUEST was associated with K–8 student social emotional learning (SEL) outcomes. LearnPlatform designed the study to satisfy Level III requirements (*Promising Evidence*) according to the Every Student Succeeds Act (ESSA, 2015; USDE, 2016).

The current study had the following research questions:

Implementation

1. To what extent did facilitators implement QUEST program components?
2. Which QUEST resources did facilitators use to support program implementation?

Outcomes

3. Did facilitators report improved student SEL skills after implementing QUEST?
4. Did variation in the implementation of QUEST program components relate to better facilitator and student-reported SEL outcomes?

[1] The 4C's include: Creativity, Communication, Critical Thinking, and Collaboration.

Methods

This section of the report briefly describes the study's setting, participants, measures, and analysis methods. Additional information on the study design, demographics, and measures is available in Appendices B—D.

Setting & Participants

This study examined users of QUEST in 14 California districts during summer 2024. It included 246 facilitators in K–2 classrooms and 560 facilitators in grade 3–5 classrooms. More than half of facilitators were licensed teachers (54% of K—2; 73% of grade 3—5). Approximately 3,483 K-2 students and 9,402 grade 3–5 students from the sample of districts participated in QUEST during summer school. The study includes data from a subset of grade 3–5 (*n* = 572) students who completed the end-of-program survey.

Across all districts, an average of 26% of students were English language learners (range = 15–56%) and 81% of students were considered socioeconomically disadvantaged (range = 42–92%). On state English language arts (ELA) assessments in 2022-23, an average of 33% of students in grades 3 through 5 tested proficient or above (range = 22–46%). Seventy-one percent of students in participating districts were Hispanic (range = 35–96%) and 12% were white (range = 2–43%). All district-level demographics are reported in Appendix B.

Measures

Researchers used summer 2024 classroom-level usage (i.e., number of units completed, use of supplemental SEL lessons, and use of other implementation resources) to examine the extent to which facilitators implemented QUEST program components and whether implementation related to more positive SEL outcomes for students.

Facilitators in K–5 classrooms completed surveys about implementation and their perceptions of student SEL skills at three time points: before, during, and after QUEST implementation. Grade 3–5 student participants completed a survey at the end of their QUEST participation. Survey items and results from exploratory factor analyses establishing the reliability and factor structure of the measures used are reported in Appendix C.

Data Analysis

Researchers used a variety of quantitative analytic approaches. Descriptive statistics described participant characteristics and the extent of QUEST implementation during summer 2024. To investigate the association between implementation and facilitator-reported student outcomes, researchers conducted partial correlations. To investigate the association between implementation and student-reported outcomes, researchers conducted multilevel models that clustered students in districts. All analyses controlled for district demographics, facilitator characteristics, and pre-test (when available). The full model results for all outcome analyses are reported in Appendix D.

Program Implementation

This section presents descriptive findings summarizing summer 2024 QUEST implementation in the participating districts. Researchers analyzed program usage data and survey responses to determine the extent to which facilitators used QUEST materials.

1

To what extent did facilitators implement QUEST program components?

Table 1 reports the number of units QUEST facilitators completed. K–2 facilitators implemented an average of three units (of a possible six, *SD* = 2.18). Grade 3–5 facilitators implemented an average of five QUEST units (of a possible seven, *SD* = 2.21).

Table 1. Overview of summer 2024 QUEST unit implementation among K—5 classrooms

	Average	Range	Percentage that completed all units
Number of QUEST units completed			
K–2 classrooms (*n* = 193)	3	0-6	22%
Grade 3–5 classrooms (*n* = 514)	5	0-7	47%

QUEST includes 20 lessons that support the development of specific SEL skills. In K–2nd grade, lessons are embedded along the progression of units. For facilitators implementing with students in 3rd grade and higher, the SEL lessons are supplemental. Table 2 summarizes grade 3—5 facilitator use of the SEL lessons during QUEST program implementation for each module. Overall, 73% of facilitators reported using one or more SEL lesson. On average, facilitators implemented eight SEL lessons (40% of the total available, *SD* = 6.92).

Table 2. Summary of supplemental SEL lesson implementation in grades 3–5

	Percentage that used SEL lessons	Average number of SEL lessons implemented	Range
Total (*n* = 407)	73%	8	0–20
Teamwork	72%	2	0–4
Perseverance & Growth Mindset	63%	1	0–4
Communication	61%	1	0–4
Goal Setting & Strategy	57%	1	0–4
Effective Decision-Making	55%	1	0–4
Solving Problems	56%	1	0–4

2 Which QUEST resources did facilitators use to support program implementation?

Nearly all K–2 facilitators (97%) used at least one of the implementation resources made available to users (see Table 3). On average, facilitators accessed implementation resources eight times (*SD* = 3.90). Most facilitators (87%) reported using digital materials in the online portal, making it the most commonly used resource.

Table 3. Summary of resource usage in K–2 classrooms

	Percentage that used resource	Average number of times used	Range
Total (*n* = 93)	97%	8	0–15
SEL Lesson Guide	85%	2	0–3
Printed QUEST Kit materials	84%	2	0–3
Digital materials	87%	2	0–3
Pacing guide	85%	2	0–3
QUEST support team	50%	1	0–3

Nearly all 3rd–5th grade facilitators (92%) used at least one of the resources available to support QUEST implementation (see Table 4). On average, facilitators reported using implementation resources seven times (*SD* = 4.19). Printed materials from the QUEST Kit and digital materials in the portal were the most used resources: 78% of facilitators reported using these materials during implementation. Among both sets of facilitators, contact with the QUEST support team was the least commonly used resource (50% of K—2; 58% of grade 3—5).

Table 4. Summary of resource usage in grades 3–5 classrooms

	Percentage that used resource	Average number of times used	Range
Total (*n* = 401)	92%	7	0–15
SEL Lesson Guide or SEL Activity Slides	71%	1	0–3
Printed QUEST Kit materials	78%	2	0–3
Digital materials	78%	2	0–3
Pacing guide	75%	2	0–3
QUEST support team	58%	1	0–3

Student Outcomes

The following section details the effectiveness findings examining the relationship between QUEST implementation and K—5 student SEL outcomes. Researchers reported statistically significant findings, which are designated in **green** text, at the $p < 0.05$ level. Full model results for all analyses conducted are available in Appendix D.

3

Did facilitators report improved student SEL skills after implementing QUEST?

Facilitators reported student SEL skills proficiency before and after QUEST implementation on a scale of 1 ("not proficient") to 5 ("highly proficient"). Researchers conducted *t*-tests comparing student SEL skills before and after playing QUEST. Researchers used *k*-means cluster analysis to designate classrooms as having low, average, or high SEL skills before playing QUEST to determine whether improvements varied by group.

Among K–2 students. Facilitators reported significant K–2 student improvements in overall SEL skills proficiency after playing QUEST ($p < 0.001$). Figure 1 displays which individual competencies varied significantly (p's < 0.05) before and after QUEST implementation. Facilitators did not report significant differences in student goal setting, decision-making, or career readiness skills.

Facilitators in K–2 classrooms reported the greatest gains on student relationship skills, making new friends, and self-awareness following QUEST implementation.

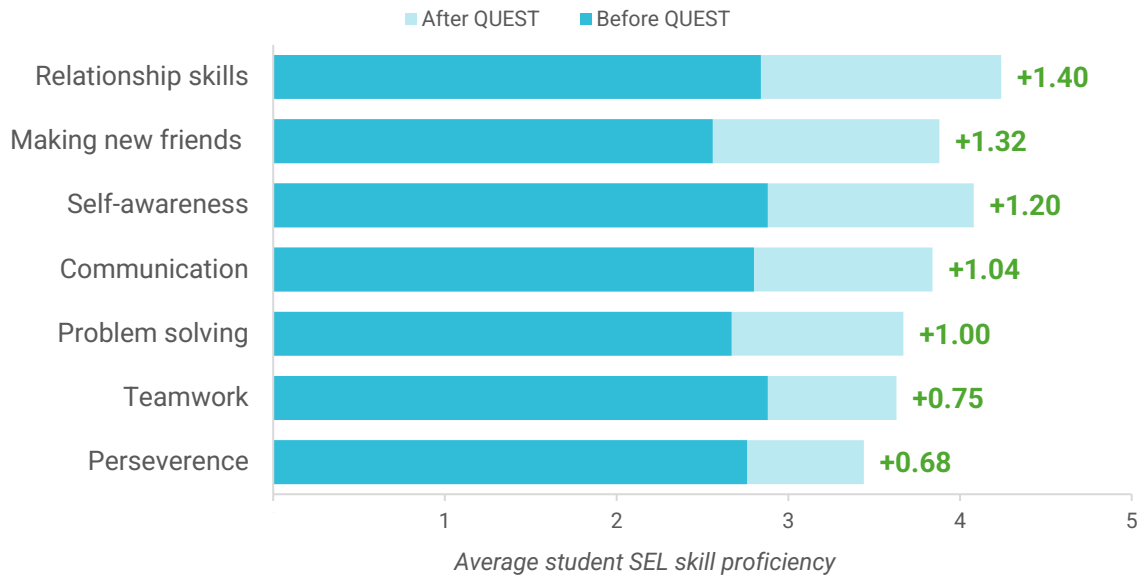


Figure 1. Facilitator-reported K–2 student SEL skills that differed before and after QUEST implementation (n = 25)

Researchers compared SEL skills outcomes by pre-QUEST proficiency group (see Figure 2). Results showed that classrooms in the low proficiency group ($M = 2.38$, $SD = 0.10$) showed the greatest improvements after playing QUEST ($M = 3.86$, $SD = 0.52$). Students in the average proficiency group ($M = 2.94$, $SD = 0.12$) also made significant gains ($M = 3.62$, $SD =$

0.39). Facilitators did not report significant gains in overall SEL skills proficiency in classrooms that were in the high proficiency group before playing QUEST.

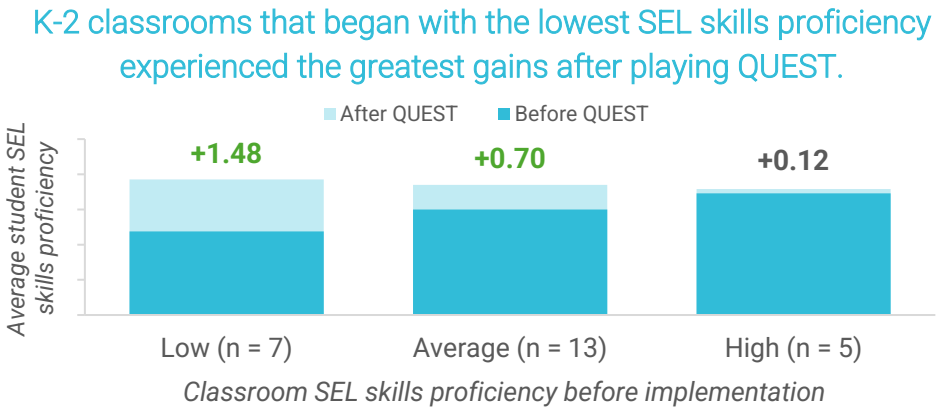


Figure 2. Facilitator-reported K–2 student SEL proficiency gains by pre-QUEST proficiency group (n = 25)

Among grade 3–5 students. Facilitators reported significant gains in overall SEL skills proficiency among grade 3—5 students after playing QUEST ($p < 0.001$). Figure 3 displays which individual competencies varied significantly (p's < 0.05) before and after QUEST. Facilitators did not report significant differences in student career readiness skills.

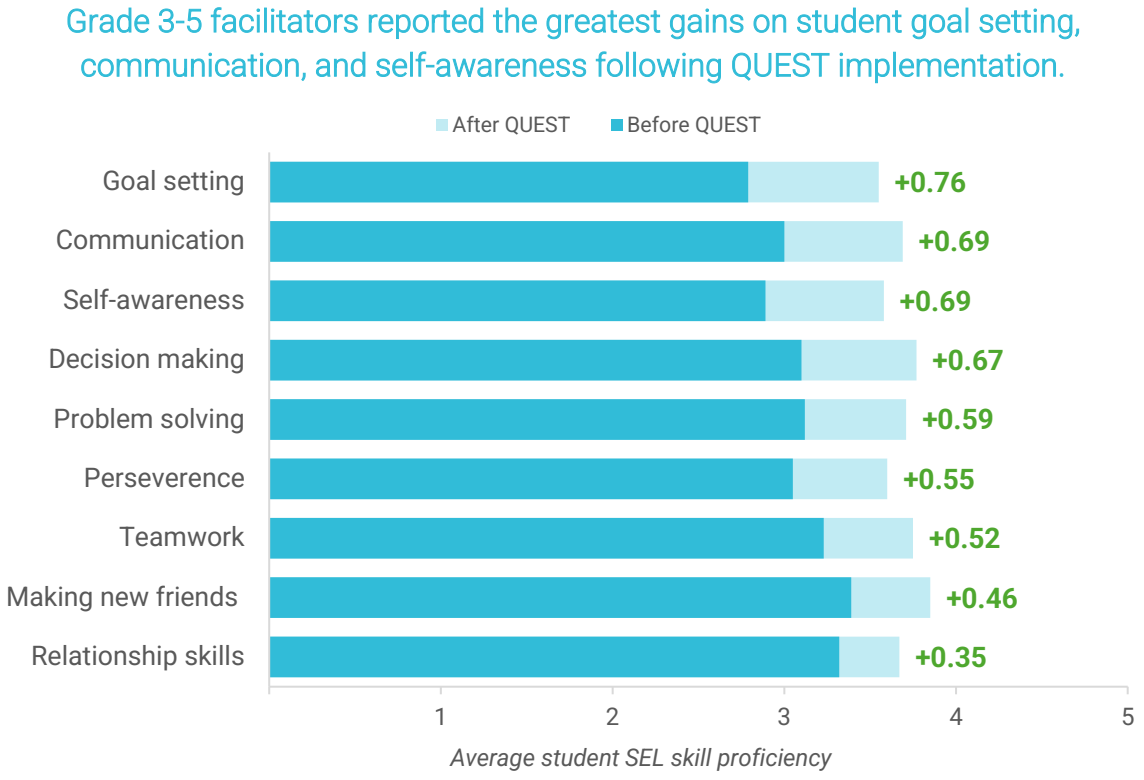


Figure 3. Facilitator-reported grade 3–5 student SEL skills that differed before and after QUEST implementation (n = 64)

Researchers compared student SEL skills improvement by pre-QUEST proficiency group (see Figure 4). Results showed that classrooms in the low proficiency group ($M = 2.30$, $SD = 0.09$)

made the largest improvements (*M* = 3.21, *SD* = 0.18). Classrooms in the average SEL proficiency group (*M* = 3.24, *SD* = 0.04) also made significant gains (*M* = 3.67, *SD* = 0.09). Finally, facilitators reported that classrooms with high SEL skills proficiency before implementation (*M* = 4.11, *SD* = 0.10) made significant gains (*M* = 4.29, *SD* = 0.10).

Grade 3—5 facilitators reported significant gains in SEL skills in classrooms with low, average, and high SEL skills proficiency before playing QUEST.

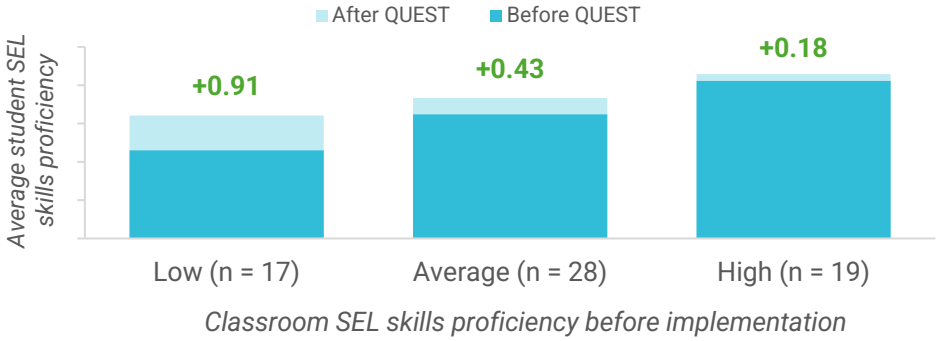


Figure 4. Facilitator-reported grade 3–5 student SEL proficiency gains by pre-QUEST proficiency group (n = 64)

4 Did variation in the implementation of QUEST program components relate to better facilitator and student-reported SEL outcomes?

Researchers conducted partial correlations and multilevel models to examine the association between QUEST implementation and student outcomes. Analyses controlled for skill proficiency before QUEST, the number of students in the class, whether the facilitator was a licensed teacher, and district-level demographics and prior achievement. Results presented in this section were reviewed for ESSA Level III eligibility (see Appendix D for additional details).

According to facilitators. Results indicated an association between QUEST implementation and several facilitator-reported student SEL outcomes. In K—2 classrooms, facilitators reported significantly better student decision-making skills (i.e., being able to negotiate and compromise) when they used more implementation resources ($p < 0.05$, see Figure 5).

Facilitators reported significantly better student decision-making skills in K-2 classrooms that used more of the available implementation resources.

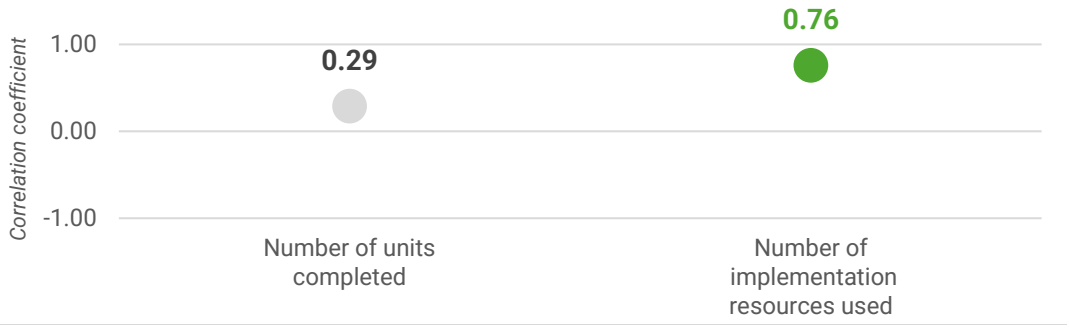


Figure 5. Partial correlations between QUEST implementation indicators and K–2 student decision-making skills (n = 24)

Analyses also found a significant relationship between QUEST implementation and grade 3–5 student career readiness. Specifically, facilitators reported significantly higher soft skills for career readiness when they implemented more QUEST units and when they implemented more supplemental SEL lessons (*p*'s < 0.05, see Figure 6).

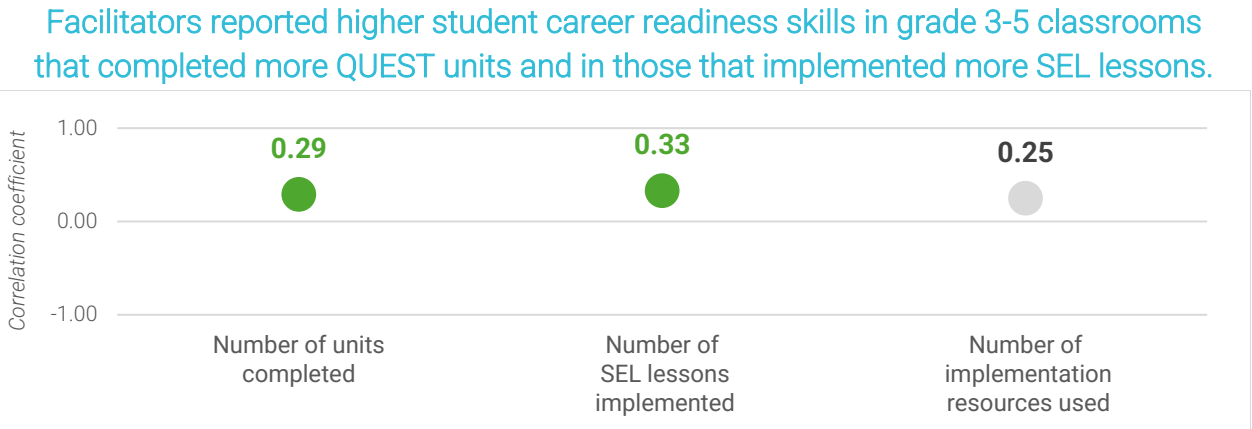


Figure 6. Partial correlations between QUEST implementation indicators and grade 3–5 student career readiness skills (n = 60)

Finally, results indicated a significant association between QUEST implementation and grade 3–5 student relationship skills (i.e., getting along with others and having empathy). Specifically, facilitators reported significantly higher relationship skills when they used more of the implementation resources (e.g., printed or online materials, pacing guides) available to QUEST users (*p*'s < 0.05, see Figure 7). QUEST implementation indicators were not significantly associated with other facilitator-reported competencies or with overall SEL skills proficiency (see Appendix D for non-significant model results).

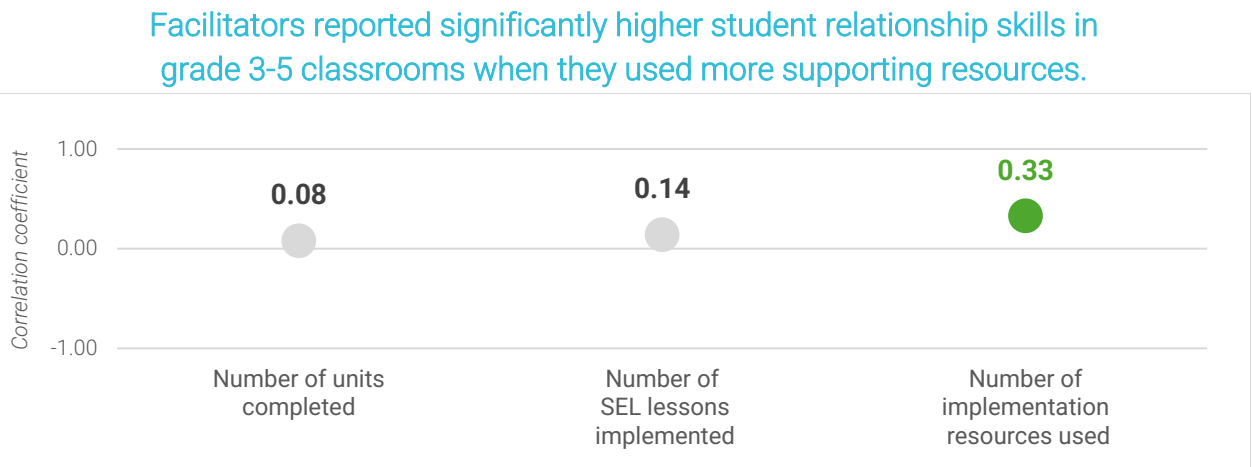


Figure 7. Partial correlations between QUEST implementation indicators and grade 3–5 student relationship skills (n = 59)

According to students. A subset of the students in grade 3–5 classrooms (n = 572) from ten of the participating districts completed a survey rating their collaborative skills after QUEST implementation on a visual four-point scale (see Appendix B for survey details). Researchers conducted multilevel models that clustered students in districts to examine the association between QUEST implementation and student-reported collaborative skills.

Analyses controlled for whether the facilitator was a licensed teacher and district-level demographic characteristics and prior year ELA achievement. Results showed that students in classrooms where facilitators used supplemental SEL lessons reported significantly higher collaborative skills (M = 3.19, SE = 0.08) than those who did not (M = 2.87, SE = 0.07; $p < 0.05$; see Figure 8). The number of units completed and the use of implementation resources were not significantly associated with student-reported collaborative skills (see Appendix D for full model results).

Grade 3–5 students reported significantly better collaborative skills in classrooms where facilitators used supplemental SEL lessons than in those that did not.

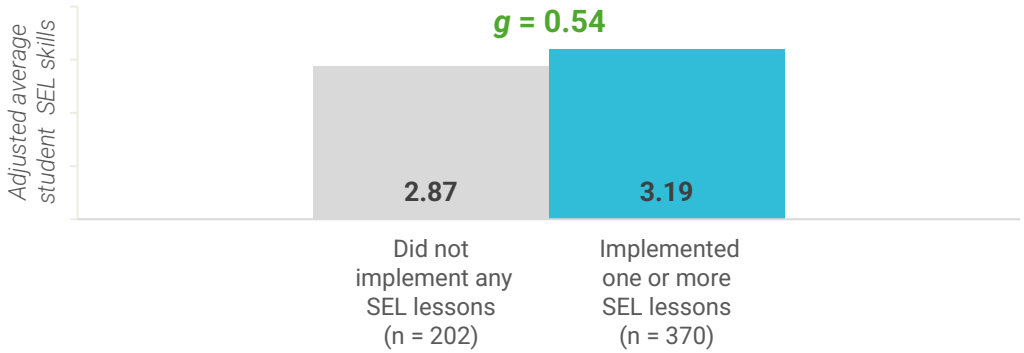


Figure 8. Comparison of grade 3–5 student-reported collaborative skills between classrooms that did and did not use supplemental SEL lessons

Researchers calculated a standardized Hedges' g effect size (Hedges, 1981) to characterize magnitude of the statistically significant relationship. In terms of educational interventions, a Hedges' g value of 0.05 indicates a small effect, while a value of 0.20 indicates a moderate effect. A value of 0.50 or above is considered a large effect (Kraft, 2020). The observed difference between groups translates to a Hedges' g effect size of 0.54, which suggests that facilitator usage of supplemental SEL lessons was associated with a large effect on student-reported collaborative skills.

Conclusions and Recommendations

This study satisfies ESSA evidence requirements for Level III (*Promising Evidence*) given five positive, statistically significant correlational findings that associated QUEST implementation with facilitator and student-reported K—5 student SEL outcomes.

Specifically, this study met the following criteria for Level III:

- ✓ Correlative design
- ✓ Proper design and implementation
- ✓ Statistical controls through covariates
- ✓ At least one statistically significant, positive finding

In the future, ProSolve could consider the following:

- Conduct another correlational study in the same or a different site with a larger sample of students participating in QUEST.
- Conduct a quasi-experimental study in a different context, with sample randomization or matching, to satisfy ESSA Level II (*Moderate Evidence*) requirements.
- Conduct an experimental study with sample randomization to satisfy ESSA Level I (*Strong Evidence*) requirements.

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Appendix A. QUEST Logic Model

Problem Statement: Students must develop social-emotional learning (SEL) and 4Cs[1] skills for academic and workforce success. However, traditional instruction frequently falls short in providing relevant, active learning experiences. Educators also need support to facilitate students' collaborative problem-solving, reflection, and relationship skills. QUEST, a student-centered SEL curriculum, addresses this gap within a nurturing, low-pressure environment. The training and program materials empower educators to facilitate immersive problem-solving experiences, actively cultivating essential student skills for lifelong learning and career readiness.

ProSolve QUEST
Logic Model

Inputs
What does QUEST provide?

QUEST PROVIDES
- An immersive enrichment curriculum aligned with the CASEL framework
  - Seven storyline-based episodes[3] with embedded phases[4] focused on building SEL competencies and the 4Cs
  - 20+ hours of grade-differentiated content combining physical materials and a digital interface
  - Easy-to-use online game portal with 80+ animated videos
- Responsive support for targeted SEL skills development and practice
- Easy and adaptable implementation, incl. school day, after-school, and summer programs
- Guide to support academic integration across subject areas and diverse student needs (e.g., supporting English learners with Spanish-language materials)
- Optional creative writing and art integration with QUEST Creators[2]
- Full-service implementation support, including 10+ tutorial videos, downloadable guides, and rule books
- In-person and virtual training with ongoing coaching and support

DISTRICT PROVIDES
- Internet-enabled devices
- Dedicated time and space to play QUEST

Participants
Who uses QUEST?

- K-8 Students
- Educators (including certified and non-certified teachers and school staff)

Activities
How are participants using QUEST?

STUDENTS
- Assign and monitor norms, roles, and responsibilities for their QUEST team
- Set goals and organize materials for gameplay
- Express ideas clearly and persuasively and listen to others' perspectives
- Anticipate and evaluate consequences when making decisions
- Solve challenges collaboratively in real-time (e.g., analyze information, experiment or prototype solutions, overcome difficulties)
- Engage in ongoing group reflection
- Earn points for gameplay
- Complete SEL reflection activities and journals
- Complete the *Student Perception Assessment*

FACILITATORS
- Participate in QUEST training, coaching, and implementation support
- Use facilitator guides and portal to manage digital gameplay
- Select and implement SEL lessons and activities in response to student progress and struggles
- Provide hints/scaffolding to teams
- Use prompts to facilitate whole and small-group decision-making and reflection discussions
- Complete the *Teacher Perception Assessment*

Outputs
What are the measurable results of implementing QUEST?

STUDENTS
- Number of QUEST phases completed
- Number and nature of judgments, decisions, challenges, and goals
- Number and nature of team journal reflections
- Number of SEL activities completed
- Number of points earned
- *Student Perception Assessment* results

FACILITATORS
- Number of training and coaching sessions attended
- Number of game portal logins
- Number of QUEST episodes and phases facilitated
- Number and nature of hints/scaffolding and facilitated reflections
- *Teacher Perception Assessment* results

Outcomes
What are the expected changes or impacts of using QUEST?

SHORT-TERM
Students
- Access to increased opportunities for active learning with and application of SEL competencies and 4Cs skills
- Increased awareness of relationship skills needed for teamwork, problem-solving, decision-making, and communication
- Introduction to an established group of peers with whom to consistently practice speaking and listening, leadership, self-management, organization, and goal-setting

Facilitators
- Understanding of framework and strategies for recognizing student strengths, agency, struggle, and reevaluating limitations
- Access to guidance on creating optimal classroom conditions for collaboration and learning
- Increased awareness of the social-emotional needs of students

INTERMEDIATE
Students
- Continue to build on foundational proficiency for sustained growth in SEL and the 4Cs through consistent opportunities for exploration and practice
- Increased ability to identify skills needed to take risks, productively struggle, and persevere through challenges with educator guidance
- Increased understanding of individual and collective strengths, diversity, and differing viewpoints

Facilitators
- Increased confidence in facilitating SEL and 4Cs skills development and practice with students
- Better understanding of student needs through improved relationship and classroom management
- Improved ability to facilitate and manage relevant, experiential learning experiences

LONG-TERM
Students
- Improved SEL, 4Cs, and career-essential skills
- Improve social and self-awareness skills through teamwork, perseverance, and strategic goal setting
- Increased connectedness to peers and school, resulting in improved attendance rates and academic performance
- Decreased negative behavior incidents and disciplinary referrals

Facilitators
- Mastery of experiential learning approaches for teaching, learning, and assessment
- Integration of classroom management and QUEST facilitation practices with typical instruction

[1] **The 4C's include**: Creativity, Communication, Critical Thinking, and Collaboration.
[2] **QUEST Creators** is a Creative Writing & Art program that focuses on building written and oral language skills that is available as an add-on purchase.
[3] Each season of QUEST immerses players in a new storyline and includes seven **episodes** to be played over the course of a semester.
[4] Five game **phases** are embedded into each season, designed around the 4C's: 1) Map Exploration/Creativity; 2) Encounter Decisions/Communication; 3) Puzzles (challenges)/Critical Thinking; 4) Bartering/Collaboration; and 5) Debrief/Reflection.

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Appendix B. District Demographics

Researchers collected district demographics and prior ELA achievement through the California Department of Education website (https://www.cde.ca.gov/ds/). ELA proficiency reflects the average percentage of grade 3—5 students who performed at or above the proficiency threshold at the end of the 2022-23 school year (the most recent year available).

Table B1. Demographic characteristics of participant districts

District	Total enrollment	Low SES	English language learners	Tested ELA proficient in 2022-23 (Grades 3—5)
Colusa	1,464	76%	21%	39%
Contra Costa†	30,010	42%	22%	46%
Fresno†	71,480	87%	20%	30%
Imperial†	4,795	86%	44%	30%
Kern†	11,751	84%	35%	34%
Los Angeles	16,037	78%	23%	35%
Madera†	18,179	90%	28%	27%
Merced	1,810	79%	22%	--
Orange†	21,249	80%	41%	31%
Riverside†	24,429	67%	15%	38%
Sacramento	40,500	89%	23%	31%
San Joaquin†	38,730	81%	24%	23%
Santa Barbara†	17,165	92%	56%	22%
Stanislaus†	4,771	47%	16%	42%

Table B2. Racial/ethnic composition of participant districts

District	Hispanic	White	African American	Asian	Filipino	American Indian	Pacific Islander	Multi racial
Colusa	73%	19%	1%	1%	0%	3%	0%	2%
Contra Costa†	44%	27%	3%	9%	4%	0%	1%	9%
Fresno†	69%	8%	8%	11%	0%	1%	0%	3%
Imperial†	96%	2%	1%	0%	1%	0%	0%	0%
Kern†	76%	10%	4%	6%	0%	0%	0%	1%
Los Angeles	90%	3%	1%	2%	1%	0%	0%	1%
Madera†	88%	7%	1%	1%	0%	0%	0%	1%
Merced	77%	12%	4%	3%	0%	1%	0%	2%
Orange†	86%	4%	1%	4%	1%	0%	0%	1%
Riverside†	68%	18%	5%	3%	2%	0%	0%	3%
Sacramento	35%	32%	9%	14%	1%	0%	1%	6%
San Joaquin†	71%	4%	9%	9%	3%	1%	1%	4%
Santa Barbara†	95%	2%	0%	0%	1%	0%	0%	0%
Stanislaus†	50%	43%	1%	1%	1%	0%	0%	4%

Note: † = District included in student-reported collaborative skills survey analysis.

Appendix C. Measure Development

LearnPlatform collaborated with ProSolve to adapt and validate their existing set of outcome survey measures embedded in the QUEST program. Researchers reviewed descriptive statistics, distributions, and reliability results for facilitator and student survey items mid-way through implementation to finalize the measures for analysis and, for student survey responses, to determine the appropriate factor structure.

Table C1. Facilitator-reported student pre-QUEST SEL skills proficiency survey items and internal consistency

	K-2 (*n* = 26)		Grade 3—5 (*n* = 63)	
	Mean (*SD*)	Inter-item covariance	Mean (*SD*)	Inter-item covariance
Pre-QUEST SEL skills proficiency	2.94 (0.42)	0.32	3.25 (0.75)	0.46
Rate how proficient you feel students were with the following skills BEFORE playing QUEST:	α = 0.73		α = 0.91	
Teamwork & Collaboration	2.92 (0.98)	0.32	3.29 (0.97)	0.46
Problem-Solving & Critical Thinking	2.77 (1.39)	0.33	3.13 (0.98)	0.45
Relationship Building: Getting along with others and having empathy.	2.88 (0.95)	0.31	3.32 (0.81)	0.47
Perseverance: Sticking with things that might be hard.	2.77 (0.95)	0.33	3.05 (0.96)	0.44
Communication: Sharing ideas & listening to others' ideas.	2.80 (1.22)	0.31	3.06 (0.92)	0.45
Self-Awareness: Understanding one's strengths & areas of growth.	2.88 (1.42)	0.26	2.95 (0.91)	0.45
Goal-Setting: Making plans and having patience for delayed gratification.	3.30 (1.43)	0.28	2.85 (1.06)	0.43
Decision-Making: Being able to negotiate and compromise.	3.20 (1.22)	0.35	3.11 (0.87)	0.46
Making New Friends: Feeling a sense of belonging.	2.56 (1.45)	0.34	3.43 (0.84)	0.47
Soft Skills for Career Readiness	3.24 (1.09)	0.35	3.82 (1.26)	0.56

Table C2. Facilitator-reported student post-QUEST SEL skills proficiency survey items and internal consistency

	K-2 (*n* = 26)		Grade 3—5 (*n* = 63)	
	Mean (*SD*)	Inter-item covariance	Mean (*SD*)	Inter-item covariance
Post-QUEST SEL skills proficiency	3.72 (0.47)	0.18	3.73 (0.73)	0.42
Rate how proficient you feel students were with the following skills AFTER playing QUEST:	α = 0.69		*α* = 0.96	
Teamwork & Collaboration	3.63 (0.92)	0.14	3.77 (0.74)	0.43
Problem-Solving & Critical Thinking	3.67 (0.76)	0.22	3.73 (0.71)	0.43
Relationship Building: Getting along with others and having empathy.	4.24 (1.01)	0.22	3.69 (0.74)	0.42
Perseverance: Sticking with things that might be hard.	3.44 (0.92)	0.15	3.62 (0.92)	0.40
Communication: Sharing ideas & listening to others' ideas.	3.84 (1.11)	0.22	3.72 (0.80)	0.42
Self-Awareness: Understanding one's strengths & areas of growth.	4.08 (1.12)	0.22	3.60 (0.75)	0.43
Goal-Setting: Making plans and having patience for delayed gratification.	3.28 (0.98)	0.17	3.56 (0.88)	0.41
Decision-Making: Being able to negotiate and compromise.	3.48 (0.92)	0.16	3.77 (0.78)	0.41
Making New Friends: Feeling a sense of belonging.	3.88 (0.88)	0.14	3.85 (0.79)	0.42
Soft Skills for Career Readiness	3.68 (1.28)	0.20	3.57 (0.67)	0.44

Table C3. Grade 3-5 student-reported collaborative skills survey items, internal consistency, and factor analysis results

Student collaborative skills (n = 608)	Variance explained	Eigenvalue	Retained factor?	Likelihood-ratio test result
Factor 1	1.14	2.73	✓	$\chi^2 = 994.79, p < 0.001$
Factor 2	0.08	0.20	×	
Factor 3	0.02	0.05	×	
Factor 4	0.01	0.03	×	
Scale items (*α* = 0.80)		Uniqueness	Inter-item covariance	Factor loading	Mean (*SD*)
I liked doing hard things.		0.79	0.14	0.46	2.78 (1.04)
My team made sure everyone was included and no one was left out.		0.62	0.22	0.62	3.02 (0.98)
I felt like I belonged on my team.		0.61	0.22	0.63	3.21 (0.92)
I shared my ideas with my team.		0.73	0.15	0.52	3.30 (0.85)
My team members listened and didn't interrupt when I shared my ideas.		0.73	0.22	0.52	2.65 (1.03)
Different people's strengths and talents helped us be successful.		0.61	0.22	0.63	3.28 (0.85)
I liked learning this way.		0.67	0.17	0.58	3.21 (0.93)
I asked others for help when I needed it.		0.66	0.16	0.58	3.10 (0.94)
My teacher enjoyed playing QUEST with us.		0.87	0.14	0.37	3.44 (0.82)

Appendix D. Full Outcome Model Results

Statistically significant findings ($p < 0.05$) are designated in **green** text. Results reviewed for ESSA Level III (*Promising Evidence)* eligibility are reported in Tables D5—D11.

Table D1. t-tests comparing facilitator-reported K-2 student pre- and post-QUEST SEL skills proficiency

Competency	Pre-QUEST		Post-QUEST		Difference	*p* - value
	Mean	SE	Mean	SE	(post - pre)	
Overall SEL skills proficiency (*n* = 25)	2.92	0.08	3.72	0.13	+0.80	0.001
Teamwork	2.88	0.20	3.63	0.19	+0.75	0.01
Problem solving	2.67	0.29	3.67	0.16	+1.00	0.01
Relationship building	2.84	0.19	4.24	0.20	+1.40	0.001
Perseverance	2.76	0.19	3.44	0.18	+0.68	0.01
Communication	2.80	0.24	3.84	0.22	+1.04	0.01
Self-awareness	2.88	0.28	4.08	0.22	+1.20	0.001
Goal setting	3.30	0.30	3.26	0.21	-0.04	0.92
Decision-making	3.20	0.24	3.48	0.18	+0.28	0.32
Making new friends	2.56	0.29	3.88	0.18	+1.32	0.001
Career readiness	3.24	0.22	3.68	0.26	+0.44	0.16

Table D2. t-tests comparing facilitator reported K-2 student post-QUEST SEL skills by pre-QUEST proficiency group

Classroom SEL proficiency group pre-QUEST	Pre-QUEST		Post-QUEST		Difference	*p* - value
	Mean	SE	Mean	SE	(post - pre)	
Low SEL skills (*n* = 7)	2.38	0.04	3.86	0.19	+1.48	0.001
Average SEL skills (*n* = 13)	3.00	0.04	3.70	0.10	+0.70	0.001
High SEL skills (*n* = 5)	3.46	0.05	3.58	0.29	+0.12	0.72

Table D3. t-tests comparing facilitator-reported grade 3—5 student pre- and post-QUEST SEL skills proficiency

Competency	Pre-QUEST		Post-QUEST		Difference	*p* - value
	Mean	SE	Mean	SE	(post - pre)	
Overall SEL skills proficiency (*n* = 64)	3.25	0.09	3.73	0.08	+0.48	0.001
Teamwork	3.23	0.12	3.75	0.09	+0.52	0.001
Problem solving	3.12	0.12	3.71	0.09	+0.59	0.001
Relationship building	3.32	0.10	3.67	0.09	+0.35	0.01
Perseverance	3.05	0.12	3.60	0.12	+0.55	0.001
Communication	3.00	0.12	3.69	0.10	+0.69	0.001
Self-awareness	2.89	0.12	3.58	0.10	+0.68	0.001
Goal setting	2.79	0.14	3.55	0.12	+0.76	0.001
Decision-making	3.10	0.11	3.77	0.10	+0.67	0.001
Making new friends	3.39	0.11	3.85	0.10	+0.46	0.001
Career readiness	3.83	0.16	3.56	0.09	-0.27	0.11

Table D4. t-tests comparing facilitator reported grade 3—5 student post-QUEST SEL skills by pre-QUEST proficiency group

Classroom SEL proficiency group pre-QUEST	Pre-QUEST		Post-QUEST		Difference	*p* - value
	Mean	SE	Mean	SE	(post - pre)	
Low SEL skills (*n* = 17)	2.30	0.09	3.21	0.18	+0.91	0.001
Average SEL skills (*n* = 28)	3.24	0.04	3.67	0.09	+0.43	0.0001
High SEL skills (*n* = 19)	4.11	0.10	4.29	0.10	+0.17	0.02

Table D5. Partial correlations between number of units implemented and facilitator-reported K—2 student outcomes

Outcome	Correlation coefficient	*p* – value	*n*	Covariates					
				Pre-test	Classroom enrollment	Licensed teacher	% ELA proficient	% Low SES	% ELL
Overall SEL skills	0.18	0.49	24	-0.03	-0.37	0.39	0.09	0.13	0.14
Teamwork	-0.07	0.78	23	0.33	-0.63*	0.60*	0.24	0.02	0.19
Problem solving	-0.08	0.77	23	0.06	-0.44	0.07	-0.06	0.22	-0.06
Relationship building	0.09	0.72	24	-0.12	0.36	0.08	0.02	0.20	-0.13
Perseverance	0.31	0.20	24	0.46	-0.36	0.28	0.13	0.19	0.34
Communication	0.01	0.98	24	0.22	-0.10	0.26	-0.32	-0.29	-0.16
Self-awareness	0.16	0.52	24	0.38	-0.13	-0.05	-0.02	0.14	0.04
Goal setting	0.18	0.49	22	-0.49	-0.21	0.05	0.11	0.26	0.20
Decision-making	0.29	0.25	24	-0.11	-0.27	-0.06	0.26	0.35	0.20
Making new friends	0.07	0.79	24	0.22	-0.43	0.33	0.19	0.31	0.12
Career readiness	0.02	0.94	24	0.11	0.08	0.26	-0.05	-0.16	0.16

Table D6. Partial correlations between use of implementation resources and facilitator-reported K—2 student outcomes

Outcome	Correlation coefficient	*p* – value	*n*	Covariates					
				Pre-test	Classroom enrollment	Licensed teacher	% ELA proficient	% Low SES	% ELL
Overall SEL skills	0.28	0.26	23	-0.01	-0.37	0.49*	0.07	-0.02	0.08
Teamwork	-0.13	0.62	23	0.35	-0.64*	0.58*	0.26	0.13	0.22
Problem solving	0.11	0.67	24	0.11	-0.45	0.05	-0.08	0.25	-0.05
Relationship building	-0.01	0.95	24	-0.14	0.38	0.11	0.04	0.18	-0.15
Perseverance	0.44	0.07	24	0.17	-0.41	0.47	0.07	-0.16	0.15
Communication	-0.30	0.23	24	0.08	-0.05	0.25	-0.26	-0.22	-0.11
Self-awareness	0.02	0.94	22	0.35	-0.10	0.01	0.00	0.05	0.01
Goal setting	0.41	0.11	24	-0.38	-0.23	0.24	0.06	0.08	0.04
Decision-making	0.76*	0.001	24	-0.20	-0.39	0.17	0.25	0.02	0.07
Making new friends	0.41	0.09	24	0.17	-0.50*	0.42	0.14	0.18	0.06
Career readiness	0.02	0.94	24	0.11	0.09	0.28	-0.05	-0.18	0.16

Table D7. Partial correlations between number of units implemented and facilitator-reported grade 3—5 student outcomes

Outcome	Correlation coefficient	*p* – value	*n*	Covariates					
				Pre-test	Classroom enrollment	Licensed teacher	% ELA proficient	% Low SES	% ELL
Overall SEL skills	0.06	0.64	63	0.58*	-0.23	0.09	0.03	0.02	0.14
Teamwork	0.04	0.77	59	0.27*	-0.22	0.02	0.00	0.02	0.06
Problem solving	0.14	0.34	58	0.37*	-0.25	-0.04	0.03	0.08	0.14
Relationship building	0.08	0.56	59	0.47*	-0.22	0.03	0.13	0.19	0.09
Perseverance	-0.05	0.72	59	0.40*	-0.18	0.07	-0.04	0.00	0.04
Communication	0.03	0.84	58	0.41*	-0.18	-0.10	-0.14	-0.01	-0.17
Self-awareness	0.27	0.06	56	0.51*	-0.29*	0.24	0.02	-0.03	0.21
Goal setting	0.10	0.49	57	0.52*	-0.15	0.02	0.11	0.11	0.15
Decision-making	0.14	0.30	59	0.32*	-0.11	-0.06	0.20	0.20	0.22
Making new friends	-0.08	0.57	60	0.51*	-0.09	-0.06	0.07	0.12	0.03
Career readiness	0.29*	0.04	58	0.08	-0.14	0.05	-0.05	-0.05	0.05

Note: * = $p < 0.05$

Table D8. Partial correlations between use of SEL lessons and facilitator-reported grade 3—5 student outcomes

Outcome	Correlation coefficient	*p* – value	*n*	Covariates					
				Pre-test	Classroom enrollment	Licensed teacher	% ELA proficient	% Low SES	% ELL
Overall SEL skills	0.06	0.68	59	0.58*	-0.22	0.06	0.03	0.02	0.13
Teamwork	0.18	0.21	58	0.24	-0.23	-0.01	0.01	0.01	0.07
Problem solving	0.02	0.92	59	0.36*	-0.23	-0.08	0.00	0.07	0.10
Relationship building	0.14	0.32	59	0.43*	-0.20	-0.01	0.13	0.18	0.09
Perseverance	-0.01	0.94	58	0.39*	-0.19	0.09	-0.03	0.00	0.07
Communication	0.01	0.94	56	0.41*	-0.18	-0.11	-0.14	-0.01	-0.19
Self-awareness	0.00	0.98	57	0.54*	-0.25	0.17	-0.05	-0.05	0.10
Goal setting	0.12	0.41	58	0.50*	-0.13	-0.03	0.10	0.09	0.13
Decision-making	0.16	0.27	59	0.33*	-0.10	-0.12	0.19	0.19	0.19
Making new friends	-0.01	0.95	57	0.49*	-0.10	-0.04	0.09	0.13	0.07
Career readiness	0.33*	0.02	58	0.22	-0.09	-0.02	-0.10	-0.12	-0.03

Table D9. Partial correlations between use of implementation resources and facilitator-reported grade 3—5 student outcomes

Outcome	Correlation coefficient	*p* – value	*n*	Covariates					
				Pre-test	Classroom enrollment	Licensed teacher	% ELA proficient	% Low SES	% ELL
Overall SEL skills	0.16	0.22	59	0.62*	-0.24	0.05	0.04	0.04	0.15
Teamwork	-0.08	0.57	58	0.26*	-0.22	0.03	-0.01	0.00	0.04
Problem solving	0.08	0.56	59	0.38*	-0.23	-0.10	0.01	0.08	0.10
Relationship building	0.33*	0.02	59	0.53*	-0.22	-0.09	0.14	0.25	0.10
Perseverance	0.16	0.27	58	0.41*	-0.20	0.04	-0.02	0.03	0.08
Communication	0.20	0.15	56	0.45*	-0.19	-0.16	-0.13	0.02	-0.16
Self-awareness	0.14	0.33	57	0.56*	-0.25	0.12	-0.04	-0.03	0.11
Goal setting	0.16	0.25	59	0.56*	-0.15	-0.05	0.11	0.12	0.15
Decision-making	0.10	0.46	60	0.37*	-0.09	-0.12	0.17	0.20	0.18
Making new friends	0.21	0.12	58	0.53*	-0.11	-0.09	0.10	0.16	0.09
Career readiness	0.25	0.08	58	0.17	-0.08	-0.07	-0.12	-0.04	-0.07

Table D10. Multilevel model results estimating the association between QUEST implementation indicators and student-reported grade 3—5 collaborative skills

Implementation indicator	Coefficient	SE	*p* – value	Covariates		
				Licensed teacher	% ELA proficient	% Low SES
Number of units (*n* = 572)	0.03	0.04	0.53	-0.12	0.01	-0.01
SEL lessons (*n* = 565)	0.17*	0.07	0.001	-0.16*	-0.09	-0.01
Implementation resources (*n* = 564)	0.01	0.01	0.23	-0.13	0.01	-0.01

Table D11. Multilevel model results comparing student-reported grade 3—5 collaborative skills between classrooms that did and did not use supplemental SEL lessons

	Coefficient	SE	*p* – value	Covariates		
				Licensed teacher	% ELA proficient	% Low SES
SEL lesson implementation	0.33*	0.06	0.001	-0.13	0.01	-0.01
	Marginal mean	SD	Hedges' *g*			
Used SEL lessons (*n* = 372)	3.19	0.67	0.54			
Did not use SEL lessons (*n* = 202)	2.87	0.56				

Note: * = $p < 0.05$