Culturally Responsive, Embedded, Social and Emotional Learning (CRESEL) in Alaska Project

Final Evaluation Report

Kimberly Kendziora, Ph.D., Yibing Li, Ph.D., Elizabeth Spier, Ph.D.

SEPTEMBER 2021

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Contents

Exhibits

Abstract

Culturally Responsive, Embedded, Social and Emotional Learning (CRESEL) in Alaska integrated social and emotional learning (SEL), culturally responsive, and trauma-informed approaches in rural and frontier school districts. The evaluation of CRESEL included implementation and impact evaluations. The implementation evaluation found that most districts implemented CRESEL with fidelity by Year 2, but by Year 4, only 45% of CRESEL schools (and 17% of control schools) met fidelity criteria. Because of low levels of school-level implementation and low treatment contrast, the impact evaluation is not a strong test of CRESEL. The impact study used a pair-matched, randomized control design. Results showed that there were no differences for any tested outcome, including student achievement, attendance, discipline, graduation, and social and emotional skills. There were no differences on any scale of the School Climate and Connectedness Survey (SCCS). Finally, there were no differences in the specific staff attitudes and behaviors hypothesized to be affected by CRESEL, such as creating a respectful climate, using SEL practices with students, or attending to adult SEL. A quasi-experimental, matched-district analysis using state report card and SCCS data also showed no differences between districts that did or did not implement CRESEL. Analyses based on implementation fidelity scores showed that schools with higher CRESEL implementation fidelity had significantly higher staff-reported SCCS scores for School Leadership and Involvement, Staff Attitudes, Student Involvement, and Cultural Connectedness. In addition, schools with more years of exposure to CRESEL had significantly higher scores than those with fewer years for: Respect (the degree to which a school creates a safe and respectful climate), Teach (how schools use SEL standards and direct instruction to develop a common understanding of SEL), and Practice (how well a school adopts teaching strategies, routines, and practices that give students the opportunity to use SEL skills throughout the day). Overall, this study did not demonstrate an impact of CRESEL, but did identify some promising findings in the exploratory analyses of outcomes as a function of CRESEL implementation.

Chapter 1. Project Overview

Overview of the Project

Culturally Responsive, Embedded, Social and Emotional Learning (CRESEL) in Alaska was part of an Investing in Innovation (i3) developmental grant awarded in 2015 by the U.S. Department of Education. CRESEL was developed and implemented by the Association of Alaska School Boards (AASB), focusing on developing culturally responsive supports to build social and emotional learning (SEL) skills in rural and frontier districts in the state. The American Institutes for Research (AIR) served as the independent evaluator for the grant. The project was planned as a four-year project (2016–2020) and received an 18-month extension.

CRESEL was designed as a two-year schoolwide approach to improve social and emotional learning (SEL) and student achievement in persistently low-performing schools in Alaska. Specifically, the AASB CRESEL implementation team worked with district, school, and cultural partners to (a) use culturally responsive, evidence-based SEL process and practices; (b) build school district infrastructure to support rural and frontier schools to implement schoolwide SEL approaches; (c) train and support school staff and administrators to implement culturally responsive schoolwide practices; and (d) ensure out-of-classroom reinforcement of culturally responsive SEL.

Project Context

Despite improvement in high school graduation rates in recent years (especially from 2010–11 to 2014–15, when the rate moved from 68% to 76%), Alaska ranks behind just the District of Columbia and New Mexico nationally (National Center for Education Statistics, 2020), with a 4-year adjusted cohort graduation rate of 79% in 2017–18. The graduation rates were lower among Alaska Native students (69%), students with disabilities (57%), students who were homeless (57%), and students in foster care (55%; NCES, 2020). Alaska continues to have lower academic proficiency rates compared to national averages (NCES, 2021). In 2019, the most recent year for which data are available, 33% of Grade 4 students in Alaska scored at or above proficient in mathematics and 25% scored at or above proficient for reading (national averages are 41% and 35%, respectively).

Another challenge facing rural Alaska schools includes a scarcity of certified teachers, principals, and superintendents. Many positions are filled with recruits from outside of Alaska (Monk, 2007; Regional Educational Laboratory Northwest, 2021; Vazquez Cano, Bel Hadj Amor, &

Pierson, 2019). Across all Alaska schools, 58% of teachers are prepared outside of the state, and in rural remote schools this percentage can reach 76%. These teachers are often novice teachers and have little experience with the cultural context of the Alaska Native students and their families. In addition, frequent migration of teachers out of the communities can have a start and stop effect on the implementation of SEL approaches with teachers choosing classroom SEL approaches without a clear understanding of the cultural context within the community and region. This also makes it difficult for teachers to move past implementation barriers without the ongoing support of a learning community or coach.

Objectives of CRESEL

CRESEL was designed based on the notion that when embedding evidence-based social and emotional learning (SEL) approaches into instructional plans in ways that are culturally resonant and supported at the district and school levels, school staff will have higher levels of uptake and ownership of SEL. Higher levels of uptake and ownership will in turn result in students in intervention schools exhibiting greater social and emotional skills, fewer behavior problems, greater cultural connectedness, and higher levels of engagement compared to students not receiving social and emotional skill building supports. Students in the intervention group will also show higher levels of academic achievement on standardized tests than students in the control group.

CRESEL had four objectives related to improving students' social, emotional, and academic outcomes by combining evidence-based social and emotional learning (SEL) programs with the culturally responsive, embedded social and emotional learning processes.

1. Establish capacity and readiness to incorporate culturally responsive practices and practices by improving: (a) school climate, as reported by teachers and staff; (b) family engagement; and (c) cultural connectedness.
2. School personnel will have supports to implement SEL approaches with fidelity by increasing: (a) perceived support within school; (b) readiness to implement and adopt practices to support SEL; (c) perceived district supports for SEL; (d) district leadership support and policies; (e) perceived support from a statewide community of practice; and to improve (f) social and emotional skills of students and school staff; and decrease (g) delinquent behaviors among students.
3. Increase district capacity and infrastructure to support SEL by improving supports for (a) district-level SEL infrastructure and (b) school-level SEL.
4. Increase after-school capacity to reinforce SEL skills by increasing district and state supports, coaching, training, and policies, as reported by afterschool staff.

Key Components of CRESEL

The logic model for CRESEL is presented in Exhibit 1.1. As part of this project, AASB recruited SEL Champions at about 40% FTE to support CRESEL work in each district. AASB convened and trained the SEL Champions and launched a community of practice to support their work in the districts' intervention schools. Specific components of CRESEL are described in the remainder of this section.

Strengthening Culturally Responsive SEL Approaches. Several elements in the culturally responsive classroom research were incorporated in the design of CRESEL, including culturally relevant curriculum content, behavioral norms of schools, linkages between classrooms and students' home cultures. The CRESEL design team at AASB worked with district and school implementation teams to (a) align CASEL SEL competencies to cultural values and embed these in district cultural standards; (b) build consensus for culturally responsive planning, implementation, and continuous quality improvement; (c) strengthen cultural congruence between community and school through enhanced evidence-based SEL approaches; (d) host visioning conversations with community members for input on culturally-responsive SEL; (e) incorporate and provide tools for culturally-responsive SEL lesson planning. AASB and the First Alaskans Institute supported these efforts by providing relevant resources, facilitation, and documentation to districts, schools, and regional tribal leaders.

Building District SEL Infrastructure. Rural schools and districts face unique challenges regarding recruitment, retention, and community connection which affect school improvement and school turnaround strategies (U.S. Department of Education, 2018). Due to the isolation and community context, instructional authority and local-decision-making require a fine balance and a clear framework from the district. To address these challenges, the CRESEL program included elements that: (a) brought together a cross-section of community and school leaders to create a vision for SEL and improved academic achievement; (b) focused on policies and support services to enhance each school's ability to achieve its vision and plan within the context of the district; (c) developed collaborative structures for working with school principals and school leadership teams; (d) developed tools and processes for principals and teachers to ensure that instruction for all groups of students includes sufficient emphasis on SEL; (e) provided professional development for district staff, school principals and teachers in culturally responsive SEL and trauma-engaged approaches to education; (f) led schools in analyzing data beyond test scores, such as school climate data; (g) engaged parents and the larger community in an ongoing dialogue about the changes needed to prepare more students; and (h)

Exhibit 1.1. CRESEL Logic Model

District-Wide Activities

Inputs

1) CR facilitator tools 2) Design team 3) Training (AASB) 4) Model policies and policy support (AASB)

Activities

* Establish vision for district-wide SEL
* Coordinate assessment and scan to inform action planning
* Develop district policies establishing SEL learning standards (adopted by board)
* Align CRESEL to district teaching framework (e.g. Marzano) and multi-tiered systems of support (e.g RTI)
* Build capacity for evidence-based implementation

Outcomes

1) Enhanced infrastructure for SEL 2) improved supports for district SEL

Out-of-School Activities

Inputs

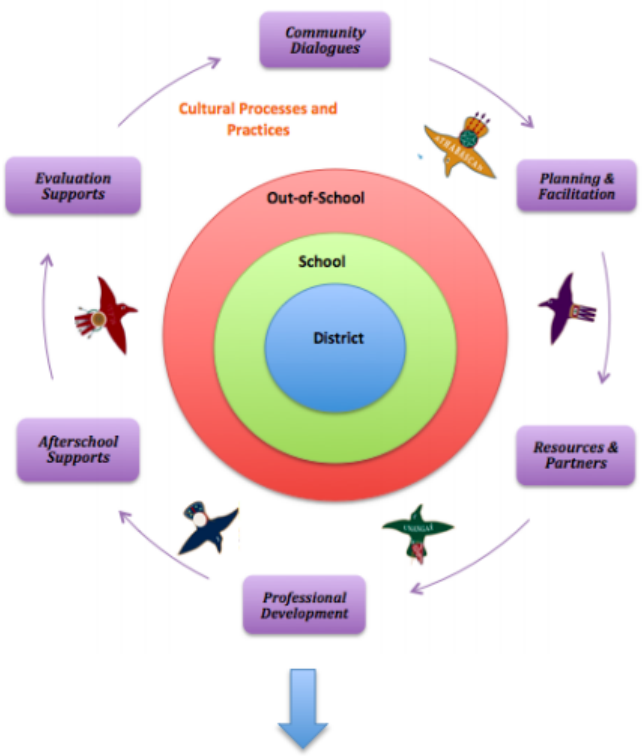
1) AASB and district supported professional development and coaching 2) Coordinator Support (AASB/Afterschool Network)

Activities

* Incorporate CRESEL competencies into 21st Century Learning Communities and other after-school activities
* Use SEL principles in organizing and planning after-school activities
* Participate in professional development (trauma informed practices and effective adult modeling of SEL skills)

Outcomes

1) After-school staff reports greater district and state-wide supports, coaching, training, and supportive policies 2) higher SEL skills used by students



School-Based Activities

Inputs

1) School design team 2) Tools for assessment and action planning 3) Coaching/Training (District/AASB) 4) State-wide community of practice

Activities

* Conduct school based planning
* Embed CRESEL competencies in PBS and other school infrastructure
* Implement culturally responsive SEL evidence-based approach
* Participate in professional development (culturally responsive SEL implementation and teaching practices).
* Support adult modeling of SEL skills

Outcomes

Higher levels of 1) perceived support within school and district 2) greater readiness; 3) enhanced student SEL skills 4) fewer delinquent behaviors

Cultural Processes and Practices

Inputs

1) Regional Values/ Cultural Standards 2) Host Questions and Tools 3) Facilitators (First Alaskans/ AASB)

Activities

* Community visioning conversations to provide input on culturally responsive SEL
* Translate SEL competencies to SEL skills that align with cultural values
* Create welcoming school environment to enhance cultural congruence between home and school.

Outcomes

1) Increased positive climate reports 2) increased ratings of family engagement and cultural connectedness

established structures for accountability and incentives for successful implementation of SEL approaches and improvement in student achievement.

Establishing Schoolwide SEL Approaches. CRESEL was built on the processes that the Collaborative for Academic and Social and Emotional Learning (CASEL) established to support school-level SEL planning and implementation (CASEL, 2019): (a) establish a team to lead SEL implementation in the school; (b) conduct a needs assessment with school staff; (c) develop and implement a culturally responsive action plan in coordination with the district; (d) integrate SEL with other school initiatives such as teacher evaluation and positive behavioral supports; and (e) support adult modeling of SEL skills.

Reinforcing SEL in After-school Settings. To ensure that SEL is effectively integrated into a whole-school approach means that there are opportunities for staff to reinforce SEL in after-school settings. Such after-school foci of CRESEL include: (a) developing and using common-language for culturally responsive SEL; (b) incorporating SEL principles in organizing, planning, and carrying out after-school activities; (c) adult modeling of SEL skills, and (d) participation in professional development related to culturally responsive SEL.

As summarized above, CRESEL is a comprehensive, multi-level approach to supporting culturally responsive SEL implementation in rural schools. As a whole-school program, it is intended to serve all students across grade levels. According to the logic model underlying the CRESEL program, we hypothesized that increasing school staff's uptake and ownership of SEL would result in greater student social and emotional skills, greater cultural connectedness, and higher levels of engagement among students. The improved student SEL in turn would lead to higher levels of academic achievement.

Overview of the Project Evaluation

As an independent evaluator of the i3 project, AIR conducted an evaluation of CRESEL, which included both implementation and impact evaluation components. The **implementation evaluation** gathered information from all schools that implemented CRESEL to address the following questions.

1. Were the district level components implemented with fidelity?
    a. Were board polices supporting culturally responsive SEL written and adopted?
    b. Have district-level professional learning events related to CRESEL occurred?
    c. How much support did the SEL Champion provide to the district?

2. Were the school level components implemented with fidelity?
    a. Did the community conversation occur?
    b. Do staff report that SEL has been aligned with response to intervention (RTI) and positive behavior supports (PBS)?
    c. Have school-level professional learning events related to CRESEL occurred, including training in the adopted SEL approach?
3. Were the afterschool level components implemented with fidelity?
    a. Have afterschool professional learning events related to CRESEL occurred, including training in the adopted SEL approach?
4. What school and district factors appear to be associated with variation in implementation?

The **impact evaluation** was designed to address the following main research questions (RQs) about the impact of CRESEL on target outcomes after two years of implementation.

1. What is the impact of CRESEL on teacher attitudes and readiness to implement SEL program and the level of support from the school and district?
2. What is the impact of CRESEL on school climate and SEL practices?
3. What is the impact of CRESEL on students' social and emotional skills, behavior problems, learning engagement, and academic performance?

To address these impact questions, we proposed a school-level randomized controlled trial (RCT) in which schools within districts were randomized to implement CRESEL during the first two years of the study (CRESEL schools) or to be on a two-year waitlist (control schools). The plan was to recruit one cohort of 30 schools and compare student SEL and academic outcomes in CRESEL schools with the outcomes in control schools at the end of the second year of the study (2017–18)—before the control schools started to implement CRESEL in the fall of 2018 (see Exhibit 1.2). However, the evaluation plan was revised as the project evolved over time, driven largely by changes in program rollout, as illustrated in Exhibit 1.2 and explained in the text that follows. The three research questions and outcomes of interest for the impact evaluation, however, remain unchanged. Although we were primarily interested in answering the main research questions above by examining the two-year impact (confirmatory questions), we also explored the extent to which CRESEL impacted on outcomes after one year of implementation (exploratory questions).

Exhibit 1.2. CRESEL Implementation Timelines in Treatment and Control Schools According to the Original Study Design and the Revised Study Design

	Study Condition	2016–17 (Study Year 1)	2017–18 (Study Year 2)	2018–19 (Study Year 3)	2019–20 (Study Year 4)	2020–21 (Study Year 5)
Original design	Treatment	Implementation Year 1	Implementation Year 2			
	Control			Implementation Year 1	Implementation Year 2	
Revised design	Cohort 1 treatment	Implementation Year 1	Implementation Year 2	Implementation Year 3	Implementation Year 4	Implementation Year 5
	Cohort 1 control in Bering Strait		Implementation Year 1	Implementation Year 2	Implementation Year 3	Implementation Year 4
	Cohort 1 control in other districts			Implementation Year 1	Implementation Year 2	Implementation Year 3
	Cohort 2 treatment		Implementation Year 1	Implementation Year 2	Implementation Year 3	Implementation Year 4
	Cohort 2 control					

Note. Blank cells indicate CRESEL was not implemented in the given year for the particular study group.

CRESEL evolved in three major ways since its launch. First, although rollout was slow and a two-year waiting period remained appropriate for most districts, to maintain engagement of all districts the CRESEL implementation team at AASB decided to allow one district to shorten the wait period to one year, allowing control schools to begin implementing CRESEL at the beginning of the 2017–18 school year. Second, the AASB CRESEL team recruited another district into the study to replace a district that dropped out after the first year of implementation, creating a second cohort. Thus, the impact evaluation design was revised to include two cohorts of schools instead of one. Third, treatment schools in both cohorts and control schools in Cohort 1 continued CRESEL implementation and participated in data collection through the last study year (2020–21). These schools had up to five years of treatment exposure by the end of the project rather than just two years of exposure as originally planned. Control schools in Cohort 2 were offered the CRESEL program on a delayed timeline, but none of those schools took up the offer. These changes led to change in the analytic sample, a much more complicated project schedule, and different entry points for different cohorts and schools in different study conditions.

In addition to the RCT, the project also included four schools that were part of a mini quasi-experimental design (QED) because two schools were promised CRESEL as requested by districts and did not participate in school randomization. Thus, the impact evaluation became a hybrid design that included an RCT and a QED. Findings from the confirmatory analysis and

most of the exploratory analyses presented in the report are based on the RCT sample only. The four schools in the QED sample were included in the analysis examining how years of CRESEL exposure were associated with staff and student outcomes.

Several other changes were made to the data collection plan from what had been originally proposed. Changes to the design included removing teacher ratings of student social emotional skills and behaviors, dropping student surveys, and allowing staff surveys to be anonymous. Given that the Alaska School Climate and Connectedness Survey (SCCS), which is administered each year by AASB, was already in place to measure most of the student and staff outcomes of interest to the study, the AASB CRESEL team and the evaluation team discussed ways to use the SCCS to reduce data collection burden on students and staff. The team decided that the SEL, learner engagement, and behavior problem measures included in the SCCS surveys were adequate measures of outcomes for this study. In addition, several districts raised the concern that staff might not be comfortable providing answers to questions related to attitudes and level of support from school and districts due to the small number of staff in some of the schools. The CRESEL project and evaluation teams decided that it was more important to receive data that reflected staff's actual attitudes than tracking changes in individual staff. Thus, the staff survey was administered anonymously.

This report is structured in chapters. Chapter 2 summarizes the revised evaluation design and methods, including the revised design of the study, sample, and data sources, as well as the data analytic methods. Chapter 3 presents results from the implementation study. Chapter 4 shares results from the impact evaluation. Chapter 5 summarizes key findings.

Chapter 2. Evaluation Design

Overall Design

AIR evaluated the implementation and impact of the schoolwide implementation of CRESEL based primarily on a school-level randomized controlled trial (RCT) that included 44 schools in total across two cohorts in five districts. In addition to the RCT, the evaluation also included a mini school-level matched-pair comparison group design with four schools from four districts. This chapter details the design used for the CRESEL evaluation and notes how it differs from the originally proposed evaluation design.

Study Design: Method of Assignment of Units to Conditions

The CRESEL evaluation includes a RCT and a mini-QED. Within the RCT, schools were randomly assigned to CRESEL or a waitlist. Relying on school report card data and AASB recommendations, schools were matched into pairs prior to random assignment. Schools within each pair were suitably "close" in terms of their baseline covariates (Bai, Romano, & Shaikh, 2021), which would help improve the comparability of treatment and control schools in each district and improve the precision of impact estimates. Assignment of schools was conducted in the spring prior to the first implementation year.

For the QED, two schools promised CRESEL were matched with two schools that had similar geographic and demographic characteristics.

Study Sample

Original sample. In the spring of 2016, the CRESEL team recruited eight rural districts. Across the eight school districts, 38 schools committed to adopt CRESEL and participate in the study. Even though the original plan was to randomize all schools into either immediate treatment or waitlist conditions, not all the recruited schools participated in random assignment. Because two schools were promised intervention prior to randomization, they were matched with two other schools based on demographic and geographic characteristics. Only 34 schools participated in randomization, with half assigned to receive CRESEL immediately and another half to a two-year waitlist. Therefore, the original sample for the CRESEL evaluation included 34 RCT schools and four QED schools.

Actual sample. Most of the schools in the original RCT sample continued to participate in the study. However, at the end of Study Year 1, one district, Kuspuk, discontinued participation in the evaluation. As a result, six schools from the district dropped out of the study (three

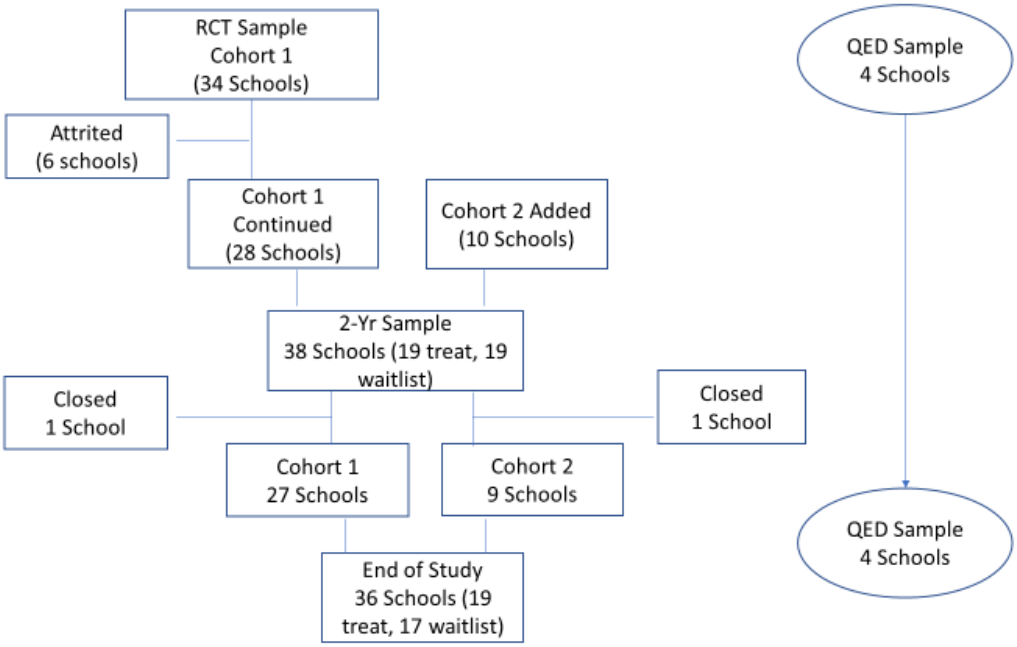
treatment and three waitlist schools). In Study Year 2, Yukon-Koyukuk was recruited to replace Kuspuk and 10 schools from Yukon-Koyukuk became Cohort 2 of the RCT sample. Based on a procedure similar to the one used for Cohort 1 schools, the 10 Cohort 2 schools were sorted into matched pairs then randomly assigned to CRESEL or the waitlist condition. With the 10 Cohort 2 schools added to the study, there were 44 schools in total across the two cohorts in the full RCT sample.

Samples for RCT Impact Analyses. Of the 44 schools in the full RCT sample, 8 schools attritted over the course of the five study years. As mentioned earlier, six schools from Kuspuk in Cohort 1 dropped out of the study at the end of Study Year 1. In addition, a Cohort 1 control school closed in 2018–19, and a Cohort 2 control school closed in 2019–20.[1] Both schools were closed due to low enrollment. Exhibit 2.1 illustrates changes in the study sample, including school attrition and the addition of Cohort 2 schools, over time. As shown in the figure, the RCT sample included 38 schools at the end of Study Year 2 and 36 schools at the end of the 5-year study. All four schools in the QED sample remained in the study throughout the project.

Given that CRESEL was designed as a two-year program, the confirmatory impact analysis focused on the impact of the program after two years of implementation (i.e., two-year impact). Given that four control schools from Bering Strait began to implement CRESEL after only a one-year waiting period, our analyses of two-year impact of the CRESEL program needed to exclude the 8 schools from Bering Strait and could include only 30 schools (20 Cohort 1 schools from districts other than Bering Strait and all 10 Cohort 2 schools). Of those 30 schools, 15 were CRESEL schools and 15 were control schools. Our analyses of the impact of one year of CRESEL implementation, however, were able to include all 38 schools remaining in the RCT sample by the end of Study Year 2, including the 8 schools from Bering Strait.

[1] Both closed schools already had been in the study for more than two years by the time they were closed. They were included in the confirmatory impact analyses.

Exhibit 2.1. Flowchart Illustrating Changes to the Evaluation Sample Over Time



Data Sources

The evaluation team conducted primary data collection including implementation logs, interviews, and staff surveys for district and school staff with different roles. In addition, the evaluation heavily relied on extant data from multiple sources, including state assessment data, school report card data, and Alaska School Climate and Connectedness Survey (SCCS) data. These data sources are described in the following paragraphs.

CRESEL Staff Survey

The study collected teacher outcome measures from a study-developed staff survey. The staff survey included three sections, based on roles of staff. The survey included sets of questions that measured staff attitudes toward SEL and their practices related to SEL. A summary of constructs, their definitions, and a brief description of each measure is presented in Exhibit 2.2. The staff survey was administered online, using SurveyMonkey, annually in the late winter/spring. In districts where staff emails were provided, invitations were sent out via email. In districts that did not share staff email addresses, a link to an anonymous survey was provided to the district. The district then distributed the link among its staff. In these districts, responses of the same staff member at different time points could not be linked.

Exhibit 2.2. Descriptions of Key Outcomes and Constructs Measured With the CRESEL Staff Survey

Outcomes	Constructs	Definition
School Climate	Respect	Creating a safe and respectful climate.
SEL Practice	Teach	Using social and emotional learning standards and direct instruction to develop a common language and understanding of social and emotional learning skills.
SEL Practice	Practice	Adopting teaching strategies, routines, and practices that give students the opportunity to use SEL skills throughout the day in all content areas and in out of school time.
Level of Support	Model	Supporting adults in developing and using their own social and emotional learning skills.
Level of Support	Support	Integrating and aligning social and emotional learning into district and school infrastructure.
School Climate	Culture	Co-creating culturally responsive and embedded social and emotional learning with the community.

School Climate and Connectedness Survey

The Alaska School Climate and Connectedness Survey (SCCS) is a voluntary statewide survey developed by AIR in partnership with AASB in 2006. The SCCS has been administered in Alaska districts annually since 2006, with refinements over time. The SCCS data used for this evaluation were collected in spring of 2017 to 2020. The overall school climate score is the average of the following scales: respectful climate, school safety, parent and community involvement, student involvement, school leadership and involvement, and staff attitudes. All items on these scales were rated on a 1–5 scale, with higher scores indicating more positive outcomes. The SCCS includes a staff version, a version for students in Grades 3–5, and a version for students in Grades 6–8. The SCCS was administered to staff and students in all study districts. Response rates of the SCCS surveys were high. The staff version and secondary student version include multiple scales. The elementary version (for Grades 3–5 students only) includes only two scales: student SEL and Caring Others.

Exhibit 2.3. Descriptions of Key Outcomes and Constructs Measured With the SCCS

Outcomes	Constructs	Grade level measured	Brief Description of Measure
Staff-Reported			
School climate	Respectful climate	All staff	5 items asking staff about the extent to which teachers and students get along, treat each

Outcomes	Constructs	Grade level measured	Brief Description of Measure
			other with respects, etc. α = 0.87
	School safety	All staff	3 items about safety. α = 0.69
	Parent and community involvement	All staff	7 items asking the extent to which the school involves parents or the community. α = 0.72
Level of support from school/district	School leadership and involvement	All staff	8 items asking how school decisions are made and behaviors of school leaders. α = 0.93
Teacher attitudes	Staff attitudes	All staff	5 items measuring staff attitudes such as setting high standards for themselves, good at their jobs, etc. α = 0.87
Behavior problems	Delinquency	All staff	5 items asking staff to report frequency of student delinquent behaviors such as destroying things, getting into fights, and carrying weapons. α = 0.83
Behavior problems	Drug use	All staff	3 items asking staff to report frequency of student drug use such as marijuana and alcohol. α = 0.71
Learning engagement	Student involvement	All staff	3 items about student involvement in problem solving and decision making. α = 0.83
Student Reported, Grades 3–5			
Student SEL skills	Caring others	Grades 3–5	15 items about students' perception of how students treat each other, help each other, and how teachers care about students. α = 0.71
Student SEL skills	SEL	Grades 3–12	17 items about dimensions of SEL such as self-awareness, social awareness, self-management, goal setting, relationships, decision making etc. α = 0.73
Student Reported, Grades 6–12			
School climate	Respectful climate	Grades 6–12	4 items asking the extent to which students felt that their teachers are fair, treat them

Outcomes	Constructs	Grade level measured	Brief Description of Measure
			with respect, and school rules are fair. α = 0.71
	School safety	Grades 6–12	3 items asking the extent to which students feel safe. α = 0.69
	Parent and community involvement	Grades 6–12	5 items asking students' perception about school as a welcoming space. α = 0.72

Extant Data

The study used extant data from multiple sources. First, Alaska School Report Card data from multiple school years were extracted from the website of Alaska Department of Education and Early Development (Alaska DEED; https://education.alaska.gov/compass/report-card). The school report card data included data on school characteristics such as enrollment, grade levels served, number of teachers, and retention rate, as well as data on attendance, graduation and dropout rates, and school-level student achievement. For example, the Alaska DEED website presents the percentage of students scoring advanced, proficient, below proficient, or far below proficient among all students or subgroups of students such as female students, Alaska Native/American Indian students, economically disadvantaged students, and students with limited English proficiency.

From 2011–12 to 2014–15, results from the Alaska Measures of Progress (AMP) and Standards-Based Assessment (SBA) were reported as school level student achievement. In 2015–16, Alaska DEED announced that the state's general and alternate assessments in English language arts, mathematics, and science were cancelled because of statewide technical failure that resulted in no valid, reliable, or usable state test data. During the 2016–17 school year and later school years, students enrolled in Grades 3–10 took the Performance Evaluation for Alaska's Schools (PEAKS) assessment. In 2019–20, PEAKS assessments were not administered due to the COVID-19 pandemic. The school report card data focus on the percentage of students at different proficiency levels regardless of the types of tests or grade levels, which allowed us to compare student outcomes in different grades, school years, or on different tests.

Implementation Measures

The CRESEL staff survey included questions to collect implementation data and document change in implementation during the project. The implementation related questions asked (a) how SEL champions worked with each school, (b) whether or not schools established a shared

vision for SEL, (c) whether the school team adopted an evidence-based SEL program, (d) staff report of integration of SEL and academic instruction, and (e) school team use of data to improve SEL implementation. In addition, SEL Champions completed Reflections forms at the end of each study year that complemented district and school staff report. The CRESEL staff survey and Reflections data collection were administered annually, first in spring 2017 and annually thereafter.

Implementation data from these sources were used to populate a detailed implementation rubric, which is shown in the Appendix. This rubric was designed represent all eight core components in the CRESEL logic model at the district, school, and after-school levels. "Implementation fidelity" was defined as achieving 75% of the maximum score across key CRESEL components. Implementation was tracked across four school years. Each year, AASB was provided with detailed findings from the implementation analysis to help guide ongoing support efforts.

Data Analyses

The study team conducted analyses to address research questions about both the implementation and the impact of the CRESEL program. The impact study included confirmatory and exploratory analyses. The confirmatory analyses address the primary research questions about the two-year impact. The exploratory analyses estimated impacts of one-year CRESEL implementation, linked student and staff outcomes with years of CRESEL exposure and conducted district-level comparative interrupted time series analysis (CITS) as a post-hoc exploratory analysis. For both the confirmatory analyses of two-year impact and the exploratory analyses of one-year impact, the evaluation team conducted school-level regression analysis and two-level HLM models with the RCT sample. The CRESEL exposure-outcome analyses used data from all schools in the RCT and QED samples. The ad hoc district CITS analysis included the 8 CRESEL districts and matched-comparison districts.

Baseline Equivalence

By the end of the two-year implementation, the RCT sample lost six schools from a district that withdrew participation, resulting an overall attrition of 13.6%. Because both CRESEL and the waitlist condition lost 3 schools, the study sample did not have any differential attrition. Thus, the impact study can be considered a RCT with low school-level attrition according to What Works Clearinghouse (WWC) standards. Because the study relied on extensive extant data that were gathered from all students and administered a staff survey that was anonymous, the evaluation included "joiners," which are considered acceptable by the most recent WWC standards (WWC, 2020). That is, the impact study could not exclude students or staff who

joined the study after school randomization. The impact study also could not track individual students or staff and thus could not provide report student or staff level attrition. Therefore, we conducted several sets of baseline equivalence tests. The results of these tests are described in Chapter 4.

Analyses of Implementation Data

The evaluation team conducted descriptive analyses of staff survey and SEL Champion Reflection data, as structured by the implementation rubric, to inform implementation. Analysis of implementation followed all schools in the CRESEL project, instead of just focusing on the RCT sample. Results of implementation data analysis are presented in Chapter 3.

Impact Analyses

Confirmatory impact analyses. The confirmatory impact analyses examined the impact of two-year CRESEL implementation on student and staff outcomes based on 30 schools from both cohorts in the RCT sample. School climate was measured by perceptions of students and staff and thus was considered both a student and staff level outcome. Staff outcomes included teacher attitudes, their perceived levels of support from school and district, and perceptions of school climate and SEL related outcomes such as teacher readiness to implement SEL and SEL practices. Student outcomes include student SEL skills, behavior problems, learning engagement and academic performance (as percentage of students meeting analyzed as school level outcomes).

The confirmatory impact analyses included two sets of analyses. The evaluation team conducted two sets of analyses. To address the three main impact related RQs, the evaluation team conducted school-level regression analyses, which included districts as dummy variables and controlled for school demographic covariates and baseline measures. In addition, the evaluation team estimated two-level HLM models, in which students or staff were nested within schools. The HLM models included school-level pretest scores of the outcomes as covariates.

Exploratory impact analyses. In addition to the confirmatory analyses, additional analyses were conducted to compare student and staff outcomes between CRESEL and non-CRESEL schools after one year of implementation, based on regression and HLM models specified similarly to those used for the confirmatory impact analyses. The school sample for this set of analyses included all the 38 schools from the two cohorts in the RCT sample.

Exploratory analyses linking implementation and outcomes. This set of exploratory analyses linked years of implementation to outcomes. As mentioned earlier, by the end of the project, most schools had implemented CRESEL. All treatment schools assigned to the CRESEL condition continued implementing the program after fulfilling the two-year commitment. Depending on which cohort they were in, treatment schools had 3 or 4 years of CRESEL programming by spring 2020. The situation was more complicated for waitlist schools. First, although most waitlist schools began implementing CRESEL after a two-year wait period, four schools in Bering Strait only waited for one year. Second, a few schools did not roll out CRESEL after the wait. Thus, CRESEL exposure for wait-list schools ranged from 0 to 3 years by spring 2020. To understand if the length of CRESEL exposure by spring 2020 was associated with student and staff outcomes, the study team conducted analyses that linked CRESEL exposure and outcomes using similar regression models and HLM models as those used for the confirmatory impact analyses, with years of CRESEL exposure as the main predictor.

District-level CITS analyses. Given that we learned during the implementation evaluation that there was greater uptake of CRESEL at the district than the school level, the evaluation team decided to test whether the districts implementing CRESEL for this study were different from other Alaska districts on outcomes relevant to the intervention. The evaluation team identified non-CRESEL districts that were comparable in terms of geographic location, features of communities served, student demographics, and student achievement. The purpose of this analysis was to assess the effect of CRESEL as a district level program on student attendance, graduation rates, and achievement in reading and mathematics. Given that the districts were not randomly assigned to the CRESEL program, this design is not as rigorous as the school-level RCT. Instead, we used a CITS design, in which changes over time in the average outcomes of districts implementing CRESEL are compared with the changes in matched comparison districts that did not implement the program. The CITS analysis was based SCCS survey data and school report cards data from 2010–11 to 2019–20, for both the eight study districts and their matched comparison districts. The CITS analysis was based on a baseline mean model. We selected baseline mean model based on the baseline trend in most of the outcomes observed.

Chapter 3. Results From the Implementation Evaluation

This chapter presents a summary of CRESEL implementation and examines how implementation fidelity evolved over the course of the project.

As shown in Exhibit 3.1, by end the 2019–20 school year, treatment schools in Cohort 1 began their fourth year of implementation, treatment schools in Cohort 2 and waitlist schools in Bering Strait began their third year of implementation, and most Cohort 1 schools that completed the two-year wait period began their second year of implementation. Two control schools in the Lower Kuskokwim school district never planned to implement CRESEL, and those schools retained control status in 2018–19 and later years. Control schools in Cohort 2 (Yukon Koyukuk) did not implement the program after completing the wait period in 2018–19 and remained untreated through the end of the study. Thus, by the end of the project, 34 out 40 study schools had implemented CRESEL two years or longer, and six schools remained untreated. The number of treatment and waitlist schools by district and school year can be seen in Exhibit 3.2.

Exhibit 3.1. Year of CRESEL Implementation, By Cohort

District Cohort	Number of Districts	Years of CRESEL Implementation	Years of Implementation
Cohort 1	6 districts*	2016–17, 2017–18, 2018–19, 2019–20	4 years
Cohort 2	1 district (Yukon Koyukuk)	2017–18, 2018–19, 2019-20	3 years

Note. *One district in the study, Lower Kuskokwim, had only control schools and is not included in the implementation analysis.

Exhibit 3.2. Treatment and Waitlist Schools by District and Study Year

District	2016–17 (Study Year 1)	2017–18 (Study Year 2)	2018–19 (Study Year 3)	2019–20 (Study Year 4)	2020–21 (Study Year 5)
Bering Strait	4 treatment 4 control	8 treatment	8 treatment	8 treatment	8 treatment
Hydaburg	1 treatment	1 treatment	1 treatment	1 treatment	1 treatment
Kodiak Island	5 treatment 5 control	5 treatment 5 control	9 treatment*	9 treatment*	9 treatment*
Lower Kuskokwim	2 control	2 control	2 control	2 control	2 control
Lower Yukon	3 treatment 3 control	3 treatment 3 control	6 treatment	6 treatment	6 treatment

District	2016–17 (Study Year 1)	2017–18 (Study Year 2)	2018–19 (Study Year 3)	2019–20 (Study Year 4)	2020–21 (Study Year 5)
Nome	2 treatment	2 treatment	2 treatment	2 treatment	2 treatment
Sitka	1 treatment 2 control	1 treatment 2 control	3 treatment	3 treatment	3 treatment
Yukon-Koyukuk	—	5 treatment 5 control	5 treatment 5 control	5 treatment 4 control*	5 treatment 4 control*
Kuspuk	3 treatment 3 control	—	—	—	—
Total treatment schools	19	25	34	34	34
Total control schools	19	17	7	6	6
Total schools	38	42	41	40	40

Note. The term "treatment" indicates that schools implemented CRESEL during a given school year. *Indicates that a school was closed.

CRESEL Implementation by Study Year

Even though CRESEL was expected to be implemented only in treatment schools or control schools that completed the wait period, staff in control schools reported high levels of CRESEL-like activities. This is not surprising given that CRESEL combines efforts that had been present across the state for some period of time. SEL activities were expected to be observed in all schools. The expectation was SEL implementation would be higher and more likely to meet the CRESEL fidelity criteria in treatment schools than in control schools.

In Study Year 1, we examined CRESEL implementation fidelity only for treatment schools. We found that one of the seven districts with treatment schools, 2 of 15 schools, and 13 of 15 afterschool programs (87%) met criteria for implementation of CRESEL with fidelity. District and school implementation fidelity rates were low, but afterschool implementation of CRESEL elements was quite high from the very beginning of the initiative.

In Study Year 2, as control schools in the Bering Strait School District also started to implement CRESEL, we decided to include all study schools that had exposure to the CRESEL program in the implementation analysis. Most control schools did not have an SEL champion or similar leader to report on CRESEL implementation in their schools, but we did include implementation measures from the staff survey. We found in Study Year 2 that all seven CRESEL districts,

including Yukon Koyukuk,[2] met the criteria for implementation of CRESEL with fidelity. At the school level, we found that six schools (out of 42 schools total, or 14%) met criteria for implementation of CRESEL with fidelity. For afterschool programs in Year 2, the programs in 24 (57%) of the 42 study schools (9 treatment and 15 control schools) met criteria for CRESEL implementation with fidelity. Overall, the level of CRESEL implementation was very high at the district level, remained low at the school level, and dropped among afterschool programs in Study Year 2 relative to Year 1. At the school level, more control schools than treatment schools were showing strong CRESEL implementation in Study Year 2.

In Study Year 3, six of the seven CRESEL districts met criteria for implementation of CRESEL with fidelity. All the districts that met fidelity criteria in Study Year 2 maintained implementation fidelity except for Nome (where the superintendent had left in the prior year). At the school level, many more schools were implementing CRESEL as the waitlist schools in Cohort 1 finished the two-year wait period in Kodiak, Lower Yukon, and Sitka (Bering Strait, Hydaburg, and Nome continued to implement in all study schools). Two treatment schools and one control school met criteria for CRESEL implementation with fidelity; this was 8%, or 3 of 38. Only Gladys Dart School, a control school in Yukon Koyukuk, met criteria in both Study Year 2 and Study Year 3. For afterschool programming, 23 of 31 CRESEL schools (74%) and 2 of 6 control schools (33%) met criteria for implementing CRESEL with fidelity. The overall rate of afterschool programs implementing with fidelity was 68%.

In Study Year 4, all seven CRESEL districts met criteria for implementation of CRESEL. Nome returned to implementing with fidelity after having not met fidelity criteria in 2019. **At the school level, there was a dramatic increase in the number of schools meeting CRESEL fidelity criteria**, from 8% in 2019 to 41% in 2020. For afterschool programming, 28 of 39 programs (72%) met criteria for implementing CRESEL; 24 of these afterschool programs were in identified CRESEL schools. The rate for afterschool programs in schools implementing CRESEL meeting fidelity criteria was 73% compared to 67% for non-CRESEL schools.

Change in Implementation Over Time

Compared with implementation from the first three years, the Year 4 data continued to show a trend toward strong implementation of CRESEL at the district level, moderate implementation in afterschool settings, and still limited—but much improved—implementation at the school level (see Exhibit 3.3).

[2] Yukon Koyukuk was added in Study Year 2 to replace Kuspuk.

Exhibit 3.3 shows notable growth in school-level implementation of CRESEL over time, particularly in Sitka, Bering Strait, and Kodiak. The overall percentage of afterschool programs meeting CRESEL implementation fidelity criteria was much higher each year: 78% (when only CRESEL schools were measured), 57%, 68%, and 72%. All study districts except for Nome and Lower Kuskokwim had at least half of their afterschool programs in study schools meet fidelity criteria in Year 4.

Exhibit 3.3. Percentage of Sites that Met CRESEL Implementation Fidelity Criteria 2016–17 to 2019–20

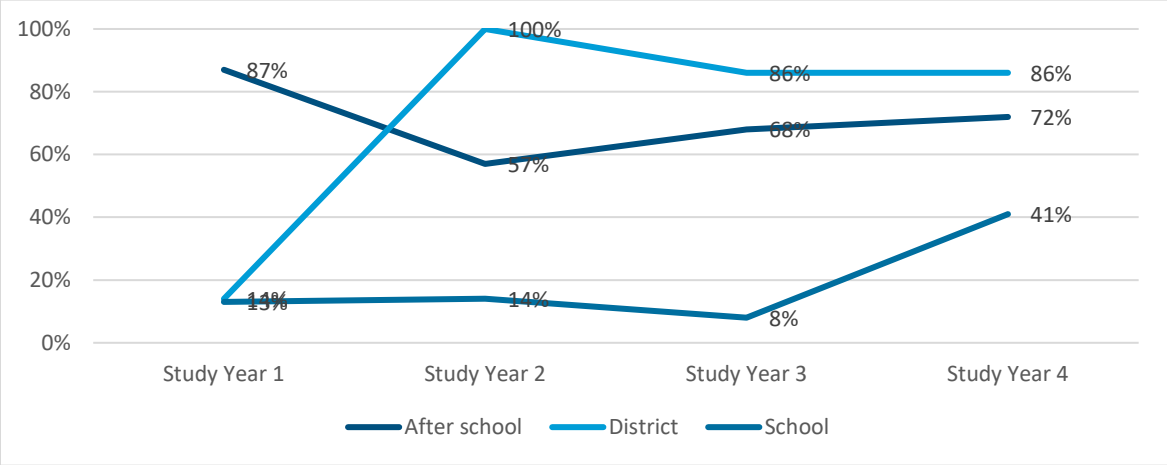


Exhibit 3.4. CRESEL Implementation Fidelity for Schools and After-school Programs, By Project Year

District	School	Treatment Exposure by Year			School-level Implementation Fidelity				After-school Implementation Fidelity			
		Study Year 1	Study Year 2	Study Years 3 & 4	Study Year 1	Study Year 2	Study Year 3	Study Year 4	Study Year 1	Study Year 2	Study Year 3	Study Year 4
Bering Strait	Aniguiin / Elim	C	T	T	—	No	No	Yes	—	Yes	Yes	Yes
	Anthony A. Andrews / St. Michael	T	T	T	No	No	No	Yes	Yes	Yes	Yes	Yes
	Brevig Mission	T	T	T	No	No	No	Yes	Yes	Yes	Yes	Yes
	Gambell	C	T	T	—	No	No	Yes	—	Yes	Yes	Yes
	Hogarth Kingeekuk Sr. Memorial / Savoonga	T	T	T	No	No	No	No	Yes	Yes	No	Yes
	Shaktoolik	C	T	T	—	No	No	Yes	—	Yes	Yes	Yes
	Shishmaref	T	T	T	No	No	No	No	Yes	Yes	Yes	Yes

District	School	Treatment Exposure by Year			School-level Implementation Fidelity				After-school Implementation Fidelity			
		Study Year 1	Study Year 2	Study Years 3 & 4	Study Year 1	Study Year 2	Study Year 3	Study Year 4	Study Year 1	Study Year 2	Study Year 3	Study Year 4
	Tukurngailn-guq / Stebbins	C	T	T	—	No	No	No	—	Yes	Yes	Yes
Hydaburg	Hydaburg	T	T	T	Yes	No	No	No	Yes	Yes	Yes	Yes
Kodiak	Akhiok	T	T	T	No	Yes	No	Yes	No	No	Yes	No
	Chiniak	T	T	T	No	No	No	No	No	No	Yes	No
	East Elementary	C	C	T	—	No	No	Yes	—	Yes	Yes	Yes
	Kodiak High	T	T	T	No	No	No	No	No	No	No	Yes
	Kodiak Middle	C	C	T	—	No	No	No	—	No	Yes	Yes
	Larsen Bay	C	C	T	—	Yes	closed	closed	—	Yes	closed	closed
	Main Elementary	T	T	T	No	No	No	Yes	Yes	Yes	—	Yes
	North Star Elementary	T	T	T	No	No	—	No	Yes	No		Yes
	Old Harbor	C	C	T	—	Yes	No	Yes	—	No	Yes	No
	Port Lions	C	C	T	—	No	No	No	—	No	—	No
Lower Kusko-kwim	Bethel Regional High	C	C	C	No	No	No	No	No	Yes	No	No
	Gladys Jung Elementary	C	C	C	Yes	No	—	No	Yes	No	—	No
Lower Yukon	Alakanuk	C	C	T	—	No	No	No	—	No	Yes	Yes
	Ignatius Beans / Mountain Village	T	T	T	No	No	No	No	Yes	Yes	Yes	No
	Kotlik	T	T	T	Yes	No	Yes	No	Yes	Yes	Yes	Yes
	Russian Mission	T	T	T	No	No	No	No	Yes	Yes	Yes	No
	Scammon Bay	C	C	T	—	No	No	Yes	—	No	Yes	Yes
	Sheldon Point / Nunam Iqua	C	C	T	—	No	No	No	—	Yes	No	Yes
Nome	Nome Elementary	T	T	T	No	No	No	No	Yes	No	No	No
	Nome-Beltz Jr/Sr High	T	T	T	No	No	No	No	Yes	No	No	No
Sitka	Blatchley Middle	T	T	T	No	No	No	Yes	Yes	No	No	Yes
	Keet Gooshi Heen Elementary	C	C	T	—	No	Yes	Yes	—	Yes	Yes	Yes
	Sitka High	C	C	T	—	No	No	Yes	—	Yes	No	No

District	School	Treatment Exposure by Year			School-level Implementation Fidelity				After-school Implementation Fidelity			
		Study Year 1	Study Year 2	Study Years 3 & 4	Study Year 1	Study Year 2	Study Year 3	Study Year 4	Study Year 1	Study Year 2	Study Year 3	Study Year 4
Yukon Koyukuk	Allakaket	—	C	C	—	No	No	No	—	Yes	No	Yes
	Andrew K. Demoski / Nulato	—	T	T	—	No	No	Yes	—	No	Yes	Yes
	Ella B. Vernetti	—	C	C	—	Yes	—	No	—	Yes	Yes	Yes
	Gladys Dart	—	C	C	—	Yes	Yes	closed	—	Yes	Yes	closed
	Jimmy Huntington	—	C	C	—	Yes	No	Yes	—	Yes	No	Yes
	Johnny Oldman / Hughes	—	T	T	—	No	No	—	—	No	Yes	—
	Kaltag	—	T	T	—	No	No	Yes	—	No	Yes	Yes
	Merreline A Kangas	—	C	C	—	No	No	No	—	Yes	No	Yes
	Minto	—	T	T	—	No	No	No	—	No	Yes	Yes
	Rampart	—	T	T	—	No	No	No	—	No	No	Yes

Notes. A dash indicates that there are no data available; this includes control (or Cohort 2) schools in Year 1, all Yukon Koyukuk schools in Year 1, (Yukon Koyukuk joined the study in Year 2), and a few other schools over time. "Closed" indicates that a particular school was closed in the given year. Cells for schools that came within 5 percentage points of meeting fidelity criteria at the school level are shaded yellow.

Chapter 4. Results From the Impact Evaluation

This chapter presents impact results based on confirmatory analyses and results based on exploratory analyses. Before presenting the results, results of baseline equivalence tests are presented.

Baseline Equivalence

The evaluation team examined the demographic characteristics of CRESEL and control schools in the RCT sample and the school level averages of SCCS staff and student survey outcomes at the baseline (2015–16). The demographic characteristics data were based on school report card data extracted from Alaska DEED's website. The SCCS survey data were collected and provided by AASB. Baseline equivalence tests were not conducted with CRESEL staff survey-based variables because no baseline staff survey was administered. In addition, baseline equivalence tests were not conducted on pretest scores of student achievement outcomes because state standardized tests were not administered in the 2015-16 school year.

School demographics. As shown in Exhibit 4.1, CRESEL and control schools in the RCT sample were similar in terms of the percentage of Alaska Native students, percentage of Hispanic students, and percentage of students eligible for free or reduced-price lunch as indicated by the small standardized mean differences (all below 0.20). The two groups of schools also had similar number of teachers and enrollment in the baseline year.

Exhibit 4.1. Baseline Differences in School Characteristics Between Treatment and Control Schools in the RCT Sample (N=38)

Baseline school characteristics	Treatment (N = 19)		Control (N = 19)		Standardized mean difference
	Mean	SD	Mean	SD	
% Alaska Native	72.13	37.78	74.91	32.65	-0.11
% Hispanic	2.03	3.69	1.93	3.24	0.04
% Free or reduced-price lunch eligible	69.34	26.4	65.38	65.38	0.11
Number of teachers	12.22	9.07	11.69	9.03	0.08
Enrollment	165.22	167.76	147.95	142.95	0.16

SCCS Staff and Student Survey based measures. Comparison of the SCCS survey variables at baseline between treatment and control schools identified several notable differences, including staff-reported student engagement, parent involvement, delinquency, and drug use, all with standardized mean differences greater than 0.25. Group differences in baseline student

outcomes reported by Grade 3–5 students were not statistically significant. Most of the group differences in Grade 6–12 student-reported outcomes such as peer climate and delinquency were not significant. However, group differences in student engagement, SEL, and drug use were relatively larger, suggesting that treatment and control schools were not equivalent at baseline in terms of these student-reported outcomes.

Exhibit 4.2. Baseline Differences in Selected SCCS Measures Between Treatment and Control Schools in the RCT Sample (N=38)

SCCS Measures	Treatment		Control		Standardized mean difference
	Mean	SD	Mean	SD	
Staff-reported measures					
Leadership	4.00	0.47	4.04	0.26	-0.15
Staff attitudes	4.13	0.40	4.15	0.29	-0.08
Student engagement	3.68	0.47	3.60	0.35	0.27
Safety	4.09	0.61	4.18	0.38	-0.25
Parent involvement	3.79	0.51	3.70	0.29	0.31
Delinquency	1.91	0.67	1.74	0.37	0.44
Drug use	1.27	0.32	1.21	0.28	0.28
Student-reported measures, Grades 3–5					
Caring others	2.67	0.08	2.63	0.07	0.04
SEL	2.62	0.05	2.60	0.09	0.02
Student-reported measures, Grades 6–12					
Peer climate	3.25	0.36	3.27	0.31	-0.08
Caring adults	3.75	0.31	3.73	0.19	0.11
Student engagement	3.50	0.29	3.39	0.25	0.57
SEL	3.00	0.13	2.97	0.13	0.33
Delinquency	1.52	0.32	1.52	0.28	0.00
Drug use	1.38	0.29	1.32	0.25	0.31
Connectedness	3.85	0.40	3.86	0.14	-0.05

In addition to baseline equivalence tests for the RCT sample, we also tested baseline equivalence for the 30 schools included in the sample for the confirmatory impact analyses that focused on two-year impact of the CRESEL program. We found that the CRESEL and control schools in the two-year impact sample had similar demographic characteristics at baseline (see

Exhibit 4.3). Several large baseline mean differences on SCCS measures, however, were found between the treatment and control schools, such as student engagement, delinquency and drug use, suggesting that treatment and control schools were not equivalent on these variables at baseline (see Exhibit 4.4).

Exhibit 4.3. Baseline Demographics Variables of CRESEL and Control Schools in the Two-Year Impact Sample (N = 30)

Baseline school characteristics	Treatment		Control		Standardized mean difference
	Mean	SD	Mean	SD	
% Alaska Native	64.42	39.73	68.29	33.87	-0.15
% Hispanic	2.61	4.02	2.44	3.49	0.06
% Free or reduced-price lunch eligible	62.23	25.74	59.71	37.30	0.11
Number of teachers	11.22	10.01	11.27	9.94	-0.01
Enrollment	160.29	190.46	149.33	159.89	0.09

Exhibit 4.4. Baseline SCCS Survey Variables of CRESEL and Control Schools in the Two-Year Impact Sample (N = 30)

SCCS Survey-based variables	Treatment		Control		Standardized mean difference
	Mean	SD	Mean	SD	
Staff-reported measures					
Leadership	4.00	0.47	4.04	0.26	-0.15
Attitudes	4.13	0.40	4.15	0.29	-0.08
Student engagement	3.68	0.47	3.60	0.35	0.27
Safety	4.09	0.61	4.18	0.38	-0.25
Parent involvement	3.79	0.51	3.70	0.29	0.31
Delinquency	1.91	0.67	1.74	0.37	0.44
Drug use	1.27	0.32	1.21	0.28	0.28
Student-reported measures, Grades 6–12					
Peer	3.31	0.39	3.33	0.33	-0.08
Caring adults	3.79	0.34	3.75	0.21	0.20
Student engagement	3.48	0.32	3.35	0.27	0.62
SEL	3.02	0.14	2.98	0.14	0.40
Delinquency	1.48	0.36	1.48	0.32	0.00

SCCS Survey-based variables	Treatment		Control		Standardized mean difference
	Mean	SD	Mean	SD	
Drug use	1.35	0.31	1.29	0.27	0.29
Connectedness	3.84	0.45	3.87	0.15	-0.13

Results of Two-Year CRESEL Impact Based on Confirmatory Impact Analyses

Two-year impact on staff and school climate outcomes. To address main impact RQs about the two-year impact of the CRESEL program on staff and school climate outcomes, we conducted both school-level regression analyses of SCCS, school report card, and CRESEL staff survey data and HLM analyses of CRESEL staff survey data. Results from the school-level regression analyses suggested that treatment and control schools were not statistically different in terms of staff reported outcomes based on the CRESEL staff survey, as shown in Exhibit 4.5.

Exhibit 4.5. Regression Estimates for Two-Year Impact of CRESEL on Outcome Measures Based on the CRESEL Staff Survey

Outcome Variable	Estimated Effect	Standard Error	Effect Size	*p*-value
Culture	0.18	0.20	0.18	0.369
Practice	0.04	0.07	0.12	0.538
Teach	0.11	0.10	0.28	0.257
Model	0.03	0.12	0.05	0.825
Respect	0.08	0.15	0.11	0.604

Similarly, staff-reported outcomes based on the SCCS data were analyzed using school level regression. The results suggested that staff averages in treatment and waitlist schools were not statistically different. All the effect sizes for the estimated two-year impact were below 0.25.

Exhibit 4.6. Regression Analyses of SCCS Staff-Reported Outcomes for the Two-Year Impact Sample

Outcome Variable	Estimated Effect	Standard Error	Effect Size	*p*-value
Leadership	0.21	0.16	0.23	0.209
Staff attitudes	0.09	0.12	0.11	0.477
Student involvement	0.16	0.15	0.21	0.278
Parent involvement	0.11	0.13	0.13	0.432
Safety	0.05	0.17	0.04	0.789

Outcome Variable	Estimated Effect	Standard Error	Effect Size	*p*-value
Delinquency	0.03	0.17	0.02	0.873
Drug use	-0.15	0.12	-0.22	0.233

Two-year impact on school level student engagement, SEL, and behavioral outcomes. Because only the school level data are available for these outcomes, we conducted impact analyses using school level regression analyses. Results of the school level regression analyses focusing on two-year CRESEL implementation on student outcomes suggested that students in CRESEL schools were not significantly different than students in control schools in terms of caring others and SEL. In fact, the two-year impact of the CRESEL program on Caring for Others was in the negative direction for elementary school students, with an effect size of -0.34 (see Exhibit 4.7). For secondary school students, the CRESEL program did not have a significant two-year impact on any of the outcomes examined based on regression analyses either. As shown in Exhibit 4.8, all but one of the two-year impact estimates for secondary school students had effect sizes below 0.25 and none were statistically significant.

Exhibit 4.7. Regression Analyses of Student-Reported Outcomes for Two-Year Impact, Grade 3–5 Students

Outcome Variable	Estimated Effect	Standard Error	Effect Size	*p*-value
Caring others	-0.11	0.05	-0.34	0.140
SEL	-0.01	0.05	-0.08	0. 813

Exhibit 4.8. Regression Analyses of Student-Reported Outcomes for Two-Year Impact, Grade 6–12 Students

Outcome Variable	Estimated Effect	Standard Error	Effect Size	*p*-value
Caring adults	0.11	0.14	0.21	0.455
SEL	0.04	0.06	0.21	0.450
Student engagement	0.14	0.12	0.27	0.260
Culture	0.11	0.44	0.17	0.799
Delinquency	-0.00	0.14	-0.01	0.975

Note. The drug use variable was coded inconsistently across years and thus was not analyzed as an outcome.

Two-year impact on student achievement outcomes. Results of regression analyses of school-level proficiency data show that the CRESEL program did not have a significant two-year impact

on student achievement in either ELA or math. As shown in Exhibit 4.9, the size of the effects of CRESEL were close to zero and non-significant.

Exhibit 4.9. Regression Analyses of Student Achievement Outcomes for Two-Year Impact

Outcome Variable	Estimated Effect	Standard Error	Effect Size	*p*-value
% students proficient in English/language arts	-1.40	2.48	-0.04	0.576
% students proficient in mathematics	-1.51	2.87	-0.04	0.604

Staff and school climate outcomes. In addition to the school level regression models, the evaluation team conducted two-level HLM analyses. As shown in Exhibit 4.10, results of HLM models were consistent with the school level regression models: there were no statistical differences between treatment and waitlist schools by the end of two-year CRESEL implementation.

Exhibit 4.10. Results of HLM Analyses of Staff-Reported SCCS Survey Outcomes for Two-Year Impact

SCCS Outcome Variable	Estimated Effect	Standard Error	*F*	*p*-value
Leadership	-0.08	0.13	-0.60	0.555
Staff attitudes	0.03	0.10	0.25	0.808
Student engagement	0.08	0.12	0.62	0.542
Parent involvement	0.11	0.11	0.93	0.364
Safety	-0.01	0.14	-0.08	0.940
Delinquency	-0.15	0.16	-0.92	0.375
Drug use	-0.13	0.14	-0.94	0.355

Student SEL outcomes. For the HLM models of student outcomes. Results of the two-level HLM analyses suggest that by the end of the two-year implementation, students in CRESEL schools were not significantly different from students in control schools in terms of SEL but had significantly lower Caring Others scores ($p = 0.00$).

Exhibit 4.11. Results of HLM Analyses of SCCS Grade 3–5 Student-Reported Outcomes for Two-Year Impact

Outcome Variable	Estimated Effect	Standard Error	*F*	*p*-value
SEL	-0.02	0.02	-1.07	0.283
Caring Others	-0.09	0.02	-3.49	0.00*

As presented in Exhibit 4.12, the results of the two-level HLM analyses of data for Grade 6–12 students were somewhat consistent with what was found by the school level regressions. Students in the treatment and control schools were not statistically different on any of the outcomes for secondary students examined in the HLM analyses.

Exhibit 4.12. Results of HLM Analyses of SCCS Grade 6–12 Student-Reported Outcomes for Two-Year Impact

Outcome Variable	Estimated Effect	Standard Error	*F*	*p*-value
Caring adults	0.04	0.11	0.38	0.712
SEL	-0.04	0.02	-1.53	0.126
Student engagement	-0.01	0.04	-0.25	0.799
Culture	0.02	0.13	0.18	0.859
Delinquency	-0.09	0.12	-0.77	0.458

Results of One-Year CRESEL Impact Based on Exploratory Impact Analyses

Staff and school climate outcomes. School level regression analyses focusing on one-year CRESEL programming controlled for baseline SCCS survey scores and school demographics. The results suggested that CRESEL and waitlist schools were not different on CRESEL staff survey outcomes. None of the coefficients associated with the treatment variables was statistically significant.

Exhibit 4.13. Regression Analyses for CRESEL Staff Survey Outcomes, One-Year Impact Sample

Outcome Variable	Estimated Effect	Standard Error	Effect Size	*p*-value
Culture	0.03	0.15	0.04	0.826
Practice	0.03	0.11	0.06	0.761
Teach	0.05	0.09	0.10	0.608
Model	0.14	0.10	0.25	0.176

Outcome Variable	Estimated Effect	Standard Error	Effect Size	*p*-value
Respect	-0.01	0.12	-0.02	0.918

Similarly, staff and school climate outcomes based on SCCS survey data suggest that staff in treatment and waitlist schools were not **significantly** different on SCCS survey-based outcomes.

Exhibit 4.14. Regression Analyses of Staff-Reported SCCS Survey Outcomes for the One-Year Impact Sample

Outcome Variable	Estimated Effect	Standard Error	Effect Size	*p*-value
Leadership	0.12	0.11	0.15	0.287
Staff attitudes	0.11	0.11	0.14	0.371
Student engagement				
Parent involvement	0.14	0.10	0.20	0.184
Safety	-0.04	0.11	-0.06	0.678
Delinquency	0.27	0.25	0.32	0.321
Drug use	0.25	0.52	0.09	0.628

Student SEL outcomes. Results of the school level regression analyses focusing on one-year CRESEL implementation on outcomes of elementary students suggested that students in CRESEL schools were not statistically different than students in waitlist schools in terms of **C**aring **O**thers and SEL (see Exhibit 4.15).

Results of the school level regression for outcomes of Grade 6–12 students suggested that these students in the treatment schools were not significantly different from the waitlist schools (see Exhibit 4.16). Compared with results of the two-year impact, the differences between Grade 6–12 students in treatment and control schools were smaller and were often negative.

Exhibit 4.15. Regression Analyses of Grade 3–5 Student-Reported SCCS Outcomes for One-Year Impact

Outcome Variable	Estimated Effect	Standard Error	Effect Size	*p*-value
Caring others	0.04	0.04	0.18	0.324
SEL	-0.02	0.05	-0.08	0.746

Exhibit 4.16. Regression Analyses of Grade 6–8 Student-Reported SCCS Outcomes for One-Year Impact

Outcome Variable	Estimated Effect	Standard Error	Effect Size	*p*-value
Caring adults	-0.05	0.10	-0.10	0.636
SEL	-0.03	0.05	-0.12	0.490
Student engagement	-0.06	0.11	-0.12	0.566
Culture	-0.07	0.11	-0.12	0.556
Delinquency	0.12	0.49	0.05	0.801

Staff and school climate outcomes. Two-level HLM analyses focusing on one-year CRESEL programming controlled for baseline SCCS survey scores and school demographics. The results suggested that CRESEL and waitlist schools were not statistically different on CRESEL staff survey outcomes. None of the coefficients associated with the treatment variables was statistically significant (see Exhibit 4.17).

Exhibit 4.17. Results of HLM Analyses of Staff-Reported SCCS Survey Outcomes for One-Year Impact

Outcome Variable	Estimated Effect	Standard Error	*F*	*p*-value
Leadership	0.09	0.13	0.72	0.478
Staff attitudes	0.03	0.12	0.27	0.790
Student engagement	0.13	0.12	1.19	0.288
Parent involvement	0.12	0.10	1.17	0.255
Safety	-0.00	0.12	-0.01	0.996
Delinquency	0.41	0.32	1.27	0.214
Drug use	0.28	0.60	0.46	0.650

Student SEL outcomes. Results of the two-level HLM analyses with students nested with schools suggest that by the end of the first year of implementation, students in CRESEL schools were not different from students in waitlist schools in terms of SEL or in Caring Others scores (see Exhibit 4.18). The results suggest that CRESEL did not have a significant impact on student SEL outcomes after one year of implementation.

Exhibit 4.18. Results of HLM Analyses of Grade 3–5 Student-Reported SCCS Outcomes for One-Year Impact

Outcome Variable	Estimated Effect	Standard Error	*F*	*p*-value
SEL	-0.00	0.03	-0.03	0.975
Caring Others	-0.00	0.04	-0.07	0.944

Exhibit 4.19. Results of HLM Analyses of Grade 6–12 Student-Reported SCCS Outcomes for One-Year Impact

Outcome Variable	Estimated Effect	Standard Error	*F*	*p*-value
Caring adults	-0.00	0.05	-0.00	0.999
SEL	-0.01	0.03	-0.41	0.690
Student engagement	-0.04	0.08	-0.55	0.591
Culture	-0.11	0.08	-1.27	0.217
Delinquency	0.12	0.43	0.29	0.775

Results of Two-Year CRESEL Impact Based on District-Level CITS Analyses

Two-year impact on student achievement, attendance, and graduation. We conducted district-level CITS analyses to examine the two-year impact of CRESEL on student achievement in English language arts and mathematics, and the two-year and three-year impact of CRESEL on attendance and graduation. Exhibit 4.20 summarizes results for the two-year impact of CRESEL for Cohort 1 districts on three types of outcomes: percentage of students being proficient or advanced in English language arts and Mathematics, attendance rate, and graduation rate. None of the differences between the two study groups in the change in the student outcome from baseline to the second year of implementation was statistically significant at the 0.05 level.

Three-year impact on student achievement, attendance, and graduation. Exhibit 4.21 presents results for the three-year impact of CRESEL for Cohort 1 districts on the same set of outcomes as those tested for two-year impact. As the exhibit shows, none of the differences between CRESEL and matched comparison districts in the change in the student outcome from baseline to the third year of implementation was statistically significant ($p > .05$).

Exhibit 4.20. Two-Year Impact of CRESEL on Student Achievement, Attendance Rate, and Graduation Rate Based on District-Level CITS Analyses

Outcome	Group Mean Difference	Standard Error	*p*-value
Academic Achievement: Percent proficient or advanced			
English language arts	-3.66	10.69	0.732
Mathematics	-2.66	10.03	0.791
Attendance Rate			
Attendance—all students	-0.53	1.75	0.761
Attendance—Alaska Native students	0.02	1.27	0.988
Attendance—students with economic disadvantage	-0.32	1.38	0.817
Graduation Rate			
Graduation rates—all students	-3.13	-3.13	0.561
Graduation rates—Alaska Native students	2.24	8.75	0.798
Graduation rates—students with economic disadvantage	-0.70	9.25	0.940

Exhibit 4.21. Three-Year Impacts of CRESEL on the Attendance and Graduation Rates and Percentage of Students Proficient or Advanced on English Language Arts and Mathematics

Outcome	Group Mean Difference	Standard Error	*p*-value
Academic Achievement: Percent proficient or advanced			
English language arts	-1.26	10.79	0.907
Mathematics	-1.55	10.05	0.877
Attendance Rate			
Attendance—all students	-0.19	1.79	0.915
Attendance—Alaska Native students	-0.15	1.36	0.909
Attendance—students with economic disadvantage	-1.77	1.78	0.321
Graduation Rate			
Graduation rates—all students	2.00	5.39	0.710
Graduation rates—Alaska Native students	8.91	8.50	0.294
Graduation rates—students with economic disadvantage	11.66	9.42	0.216

CITS results for SCCS Outcomes. Results of CITS analyses for outcomes based on SCCS data are similar. None of the differences between CRESEL districts and comparison districts in the changes in SCCS outcomes from baseline to the second, third, and fourth years of implementation was statistically significant. Exhibits 4.22–4.26 demonstrate the trends in CRESEL and comparison districts for the five SCCS scales that had the most complete data. The vertical line between 2016 and 2017 in each figure indicates the introduction of CRESEL (for Cohort 1 districts). The charts show that there was not a meaningful change in trend from before to after the introduction of CRESEL for any of the SCCS scales and none of the statistical tests of change in trend was significant.

Exhibit 4.22. Staff Attitudes about School in CRESEL and Comparison Districts (2012–2020)

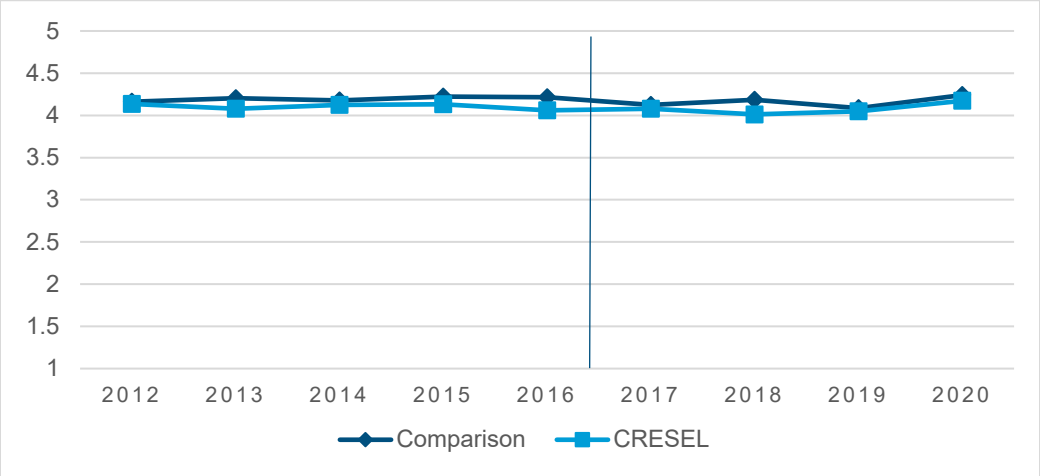


Exhibit 4.23. Staff Reported Safety in CRESEL and Comparison Districts (2012–2020)

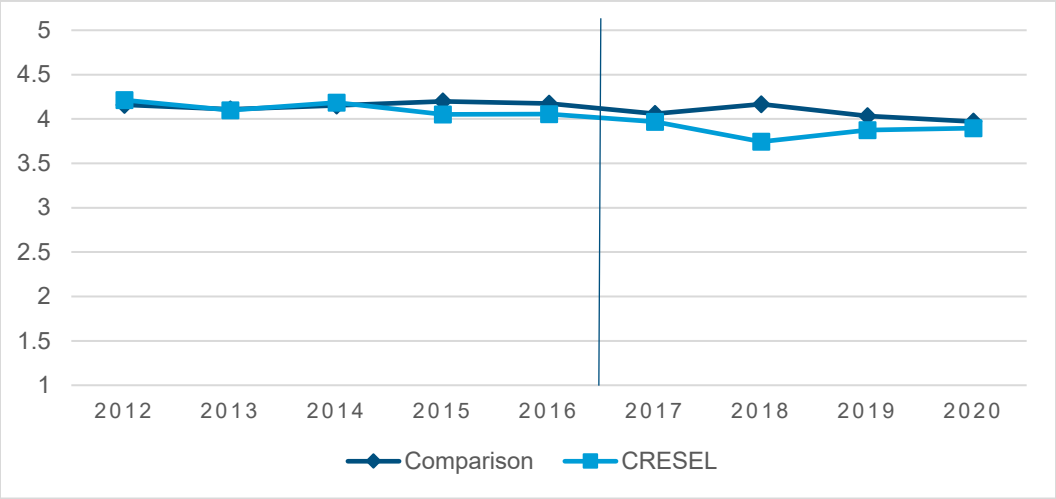


Exhibit 4.24. Student Involvement in CRESEL and Comparison Districts 2012–2020

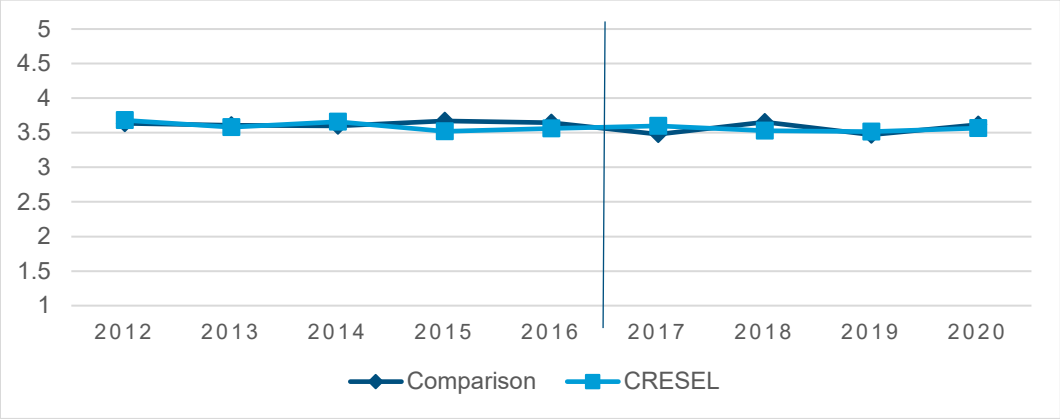


Exhibit 4.25. Leadership in CRESEL and Comparison Districts 2012–2020

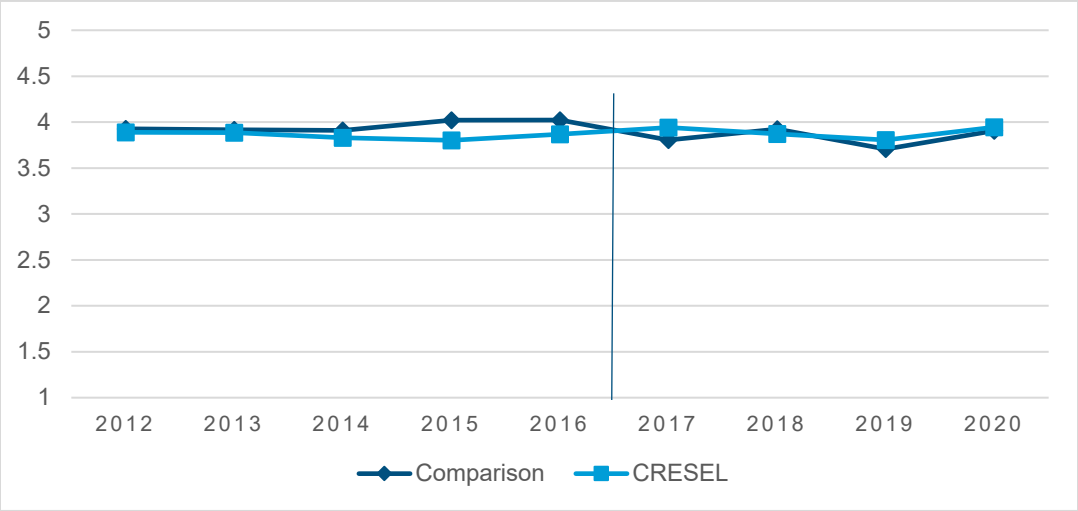
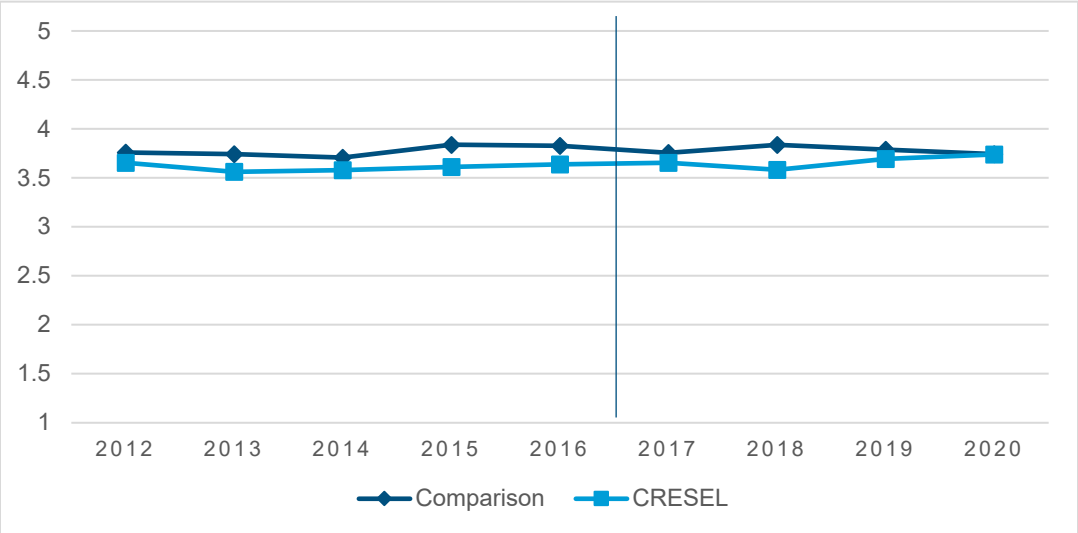


Exhibit 4.26. Family and Community Engagement in CRESEL and Comparison Districts in 2012–2020



Results from Exploratory Analyses of the Associations Between CRESEL Exposure and Outcomes

Exhibit 4.27. Years of CRESEL Exposure by 2019–20, by School Study Condition

Years of CRESEL Exposure	Number of Schools	School Study Condition
4 years: 2016–17 to 2019–20	16	Cohort 1 treatment schools
3 years: 2017–18 to 2019–20	8	Cohort 2 treatment schools and Bering Strait control schools
2 years: 2018–19 to 2019–20	10	Cohort 1 control schools
No exposure	7	Cohort 2 control schools and two Cohort 1 control schools in Lower Kuskokwim

Given that there were four groups of study schools with varying lengths of CRESEL exposure, we conducted one-way ANVOA analysis to compare the 2019–20 staff survey outcome variables of the four groups. The descriptive analysis showed that in schools with one or two years of CRESEL exposure, the average scores seemed to higher, relative to schools with no exposure. Interestingly, the schools with three years of exposure had lower scores than schools with shorter exposure. Results of the statistical analysis (Exhibit 4.14) showed that the four groups of schools differed significantly in terms of 2019–20 staff survey outcomes including Teach, Practice, and Respect.

Exhibit 4.28. Average Staff Survey Outcomes in 2019–20 by School Group

	No exposure	One-Year exposure	Two-Year exposure	Three-Year exposure	Results of ANOVA	
Outcomes	Mean	Mean	Mean	Mean	*F* statistics	*p*-values
Teach	3.0	3.2	3.2	3.0	3.39	0.029*
Practice	3.0	3.2	3.3	3.1	3.36	0.024*
Model	2.4	2.6	2.7	2.5	1.90	0.150
Respect	2.8	3.3	3.3	3.0	3.04	0.043*
Support	2.5	3.0	2.9	2.8	2.28	0.098
Culture	2.5	2.9	2.9	2.7	1.46	0.243
After-school	2.9	3.2	3.3	3.1	2.42	0.088

Chapter 5. Summary of Key Findings and Limitations

Perhaps the two most important findings of this evaluation were that districts were faster and better able to implement CRESEL than schools were, and that a relatively large proportion of control schools achieved high scores on CRESEL implementation measures. This suggests that the intervention did not function strongly at the school level but was more appropriately conceptualized as a district-level approach. All CRESEL districts showed implementation fidelity within two years, but only 45% of schools that had been exposed to CRESEL met fidelity criteria at the end of four years. However, in 2020, of 13 schools measured that had never been exposed to CRESEL, four (31%) met fidelity criteria. This underscores the low contrast between CRESEL schools and other Alaska schools, many of which were involved in other approaches to address cultural responsiveness, student and staff trauma, and social and emotional learning. Indeed, the CRESEL developers, the Association of Alaska School Boards, worked with state education staff to develop *Alaska Standards for Culturally Responsive Schools* in 1998. These standards, along with regional Alaska Native values, have been endorsed by each region of the state and serve as the foundation for establishing culturally responsive SEL supports that encompass trainings, instruction, and practice.

In the context of low school uptake and low contrast, the absence of impact findings is reasonable. The evaluation of CRESEL tested the effects of integrating cultural responsiveness and SEL on teacher, school, and student outcomes. The evaluation used a randomized control design in which schools were matched into pairs within and across districts based on their characteristics, and then one school in the pair was randomly assigned to adopt CRESEL or to wait at least one year to begin (control schools). The evaluation team then compared student, staff, and school outcomes for treatment and control schools.

Results showed that there were no differences between treatment and control schools for any tested outcome. These outcomes included student achievement, attendance, discipline, graduation, and social and emotional skills. There were no differences for any scale measured by the School Climate and Connectedness survey. Finally, there were no differences in the specific staff attitudes and behaviors we thought would be most affected by CRESEL (creating a safe and respectful climate; using social and emotional learning standards and direct instruction to develop a common language and understanding of social and emotional learning skills; adopting teaching strategies, routines, and practices that give students the opportunity to use SEL skills throughout the day in all content areas and in out of school time; supporting adults in developing and using their own social and emotional learning skills; integrating and aligning social and emotional learning into district and school infrastructure; and co-creating culturally responsive and embedded social and emotional learning with the community).

Beyond looking at differences in schools, we also examined differences at the district level using a comparative interrupted time series design. We matched districts that had implemented CRESEL with those that had not and compared the trends in their outcomes over time. For these comparisons, we relied on extant data and were limited to data from state report cards and the SCCS. Once again, we found no differences for achievement, academic growth, attendance, graduation, or any staff reported school climate scale.

To more fully understand the story of how CRESEL was implemented during this grant, the evaluation team conducted a series of interviews with key informants at the district (n=9) and school levels (n=8) in all CRESEL districts. Every respondent expressed that the work of CRESEL—culturally responsive SEL with trauma-informed approaches—was an essential part of education and entirely consistent with their district's or school's priorities. The universal acceptance of these priorities across the seven CRESEL districts was perhaps among the strongest findings.

The interviews went beyond attitudes and beliefs, however, to ask about whether the specific steps involved in implementing CRESEL had been achieved. It was here that much more variability began to emerge. Although all districts had a CRESEL team at some point, in some places this team no longer met after the first year of the grant. All districts established a vision and action plan, but these action plans were seldom updated. An SEL champion was identified in each district, but this person did not always have the relationships or degree of influence necessary to promote change in behavior. Professional learning on CRESEL topics was provided in all districts, but there was not always the level of job-embedded coaching and ongoing support needed to translate knowledge of culturally responsive SEL approaches to instructional behavior. All districts engaged their communities in envisioning how to reflect the community culture in schooling, but in some places, plans fell apart when individuals did not follow through. All districts reported that they adopted an evidence-based SEL approach, but training on this approach was not always provided, some approaches needed significant adaptation to make them relevant for Native Alaskan students, and some districts switched programs during the CRESEL grant period, necessitating new training.

Overall, the interviews about CRESEL revealed that there is a high level of acceptance of culturally responsive SEL, and districts want to keep the work going. In one district, for example, a Coordinator of Cultural Programs position was created to maintain CRESEL efforts. In another district, CRESEL work will continue under team structures established by the Safe and Civil Schools approach. One district leader summarized their approach this way: "As we move closer toward the end of the study grant, you know, our minds have shifted from implementation to

sustainability. [. . .] The project CRESEL name may change, but the effort is still valid. And so we have to keep that going."

A significant barrier to CRESEL has already been resolved in these districts—there is wide acceptance of this work and belief in its importance. The next stage of work will involve actualizing these beliefs in educational practice.

Limitations

The evaluation design presents some limitations. First, the evaluation relied on anonymous surveys, thus, we were not able to document within-person change in staff attitudes. In addition, we were not able to track student and teacher joiners/leavers in the study sample. Second, the CRESEL project included district-level implementation components that likely contaminated school-level effects.

Additionally, all implementation data were based on staff report. The SEL Champions who provided data on the Reflections forms were employed by the districts on which they were reporting. This may have led to some positive bias, but the implementation findings showing low levels of CRESEL fidelity did not suggest this was the case.

References

Bai, Y., Romano, J. P., & Shaikh, A. M. (2021). Inference in experiments with matched pairs. *Journal of the American Statistical Association*. [published online]. DOI: 10.1080/01621459.2021.1883437

CASEL (Collaborative for Academic, Social, and Emotional Learning). (2019). *The CASEL guide to schoolwide social and emotional learning* [website]. https://schoolguide.casel.org/

Institute for Education Sciences. (2020, October). What Works Clearinghouse™ Standards Handbook, Version 4.1. U.S. Department of Education. https://ies.ed.gov/ncee/wwc/handbooks

Monk, D. H. (2007). Recruiting and retaining high-quality teachers in rural areas. *The Future of Children, 17*(1), 155–174. https://www.jstor.org/stable/4150024

National Center for Education Statistics. (2020). Digest of education statistics: Table 219.46. Public high school 4-year adjusted cohort graduation rate (ACGR), by selected student characteristics and state: 2010–11 through 2017–18. [Website]. https://nces.ed.gov/programs/digest/d19/tables/dt19_219.46.asp

National Center for Education Statistics. (2021). The Nation's Report Card: Data tools: State profiles: Alaska. [Website]. https://www.nationsreportcard.gov/profiles/stateprofile?chort=1&sub=MAT&sj=&sfj=NP&st=MN&year=2019R3

Regional Educational Laboratory Northwest, (2021). *Educator retention and turnover in Alaska: 2021 Update.* Institute for Education Sciences. https://ies.ed.gov/ncee/edlabs/regions/northwest/pdf/ak-educator-retention-infographic-update.pdf

U.S. Department of Education. (2018). *Section 5005 Report on Rural Education: Final Report.* Author. https://www2.ed.gov/about/inits/ed/rural/rural-education-report.pdf

Vazquez Cano, M., Bel Hadj Amor, H., & Pierson, A. (2019). *Educator retention and turnover under the midnight sun: Examining trends and relationships in teacher, principal, and superintendent movement in Alaska.* Education Northwest, Regional Educational Laboratory Northwest. https://files.eric.ed.gov/fulltext/ED598351.pdf

Appendix. CRESEL Implementation Rubric

Key Component	Unit of implementation	Key Indicators	Operational Definition for Indicator	Fidelity Data Source for Indicator	Indicator-Level Fidelity Score	Sample Level Fidelity for Component
Key Component 1: District Planning	District	1. District forms a design team	District formed a team and the team met at least quarterly	AASB records	Implemented with fidelity: team formed, met 4 or more times	4 out of 7 districts with treatment schools implement with fidelity (the 8th district has only control schools)
					Met fidelity = 1	
	District	2. District develops and adopts board policies	District adopted board policies related to culturally responsive SEL: yes or no	Staff survey, 5 items, 3-point scale (0, 1, 2)	Implemented with fidelity: 6 or more points or average of 2.25 or more	
					Met fidelity = 1	
	District	3. SEL readiness and capacity among district staff	District respect, teach, model, support, and culture scales (42 items total)	Staff survey, 5 scales indicated	Implemented with fidelity: 4 or more scales with 75% of possible points	
					Met fidelity = 1	
	District	4. Professional learning occurred at district level	At least two professional learning events per year on CRESEL topics	SEL Champion reflections	Implemented with fidelity: two or more events	
					Met fidelity = 1	
					Fidelity at the district level = score of 3 or more	
Key Component 2: School Planning	School	1. School implementation group formed	School formed a team (and the team met at least two times per semester)	SEL Champion reflections	Implemented with fidelity: team met 4 or more times	75% of treatment schools (13 out

Key Component	Unit of implementation	Key Indicators	Operational Definition for Indicator	Fidelity Data Source for Indicator	Indicator-Level Fidelity Score	Sample Level Fidelity for Component
					Met fidelity = 1	of 18) have implemented with fidelity (score of 6 or more)
	School	2. Community conversations occurred	Communication with the community about CRESEL is well developed and happening as planned.	SEL Champion reflections	Implemented with fidelity: average rating of 3 or greater	
					Met fidelity = 1	
	School	3. Align SEL with positive behavior supports	2 integration items for school leaders (1–4)	Staff survey, reported integration	Implemented with fidelity: raw mean > 3.0	
					Met fidelity = 1	
	School	4. Develop action plan	How fully implemented is your school's action plan?	SEL Champion reflections	Implemented with fidelity: average rating of 3 or greater	
					Met fidelity = 1	
	School	5. Embed professional learning	School staff report that they have received PD in CRESEL-related topics	Staff survey: model scale (56 possible points, 4@1–3 and 11@1–4 scales)	Implemented with fidelity: raw mean >= 2.80 points	
					Met fidelity = 1	
	School	6. Adopt evidence-based program	School staff report that they have been trained in, use, get feedback on, and are committed to the school's SEL approach	Staff survey: Practice scale (46 possible points; 11, 1–4 scale items, 1 yes/no item)	Implemented with fidelity: raw mean >= 2.90 points	
					Met fidelity = 1	
	School	7. Integrate SEL	School staff report integrating SEL into instruction and behavior management	Staff survey: 4 staff integration items (1–4 scale)	Implemented with fidelity: raw mean > 3.0	
					Met fidelity = 1	

Key Component	Unit of implementation	Key Indicators	Operational Definition for Indicator	Fidelity Data Source for Indicator	Indicator-Level Fidelity Score	Sample Level Fidelity for Component
	School	8. Use data for continuous improvement	School staff report that their school uses data about climate and SEL	Staff survey: 3 teacher items, (1–4 scale)	Implemented with fidelity: raw mean > 3.0	
					Met fidelity = 1	
					Fidelity at the school level = score of 6 or more	
Component 3: After-school Planning	After-school Program	1. School day - afterschool continuity planning for SEL	This year, did your school do any planning to reinforce CRESEL in out of school time (afterschool activities, sports, with families)?	SEL Champion reflections	Implemented with fidelity: 1.5 or greater (average rounds to "yes")	75% of treatment schools (13 out of 18) implemented with fidelity score of 2 or 3)
					Met fidelity = 1	
	After-school Program	2. Activity planning, modeling SEL, participate in PD	At least one professional learning event per year on CRESEL topics	SEL Champion reflections	Implemented with fidelity: one or more events	
					Met fidelity = 1	
	After-school Program	3. After-school items on CRESEL staff survey	Respect, Teach, Practice, Model, Support scales	Staff survey, afterschool respondents, 17 items (1–4 scale)	Implemented with fidelity: raw mean > 3.0	
					Met fidelity = 1	
					Fidelity at program level = score of 2 or 3	

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