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Evaluating and Replicating the San Francisco Unified School District's

Summer Academy for Integrated Language Learning (SAILL) Program

San Francisco Unified School District (SFUSD) proposes a 5-year EIR Early Phase Grant to evaluate the implementation of and replicate the Summer Academy for Integrated Language Learning (SAILL), a five-week summer program designed to support English Learners' (EL) social, linguistic, and academic development (Gottesfeld & Fong, 2017). SAILL arranges 400 newcomer high school (HS) ELs in heterogeneous groups to experience collaborative, interdisciplinary and project-based learning. Students earn 10 credits, improve their English skills and learn Computer Science (CS) by embedding Bootstrap into Algebra or Physics. This study—which meets Absolute Priority 1 & 3 and the Competitive Priority for CS—will advance knowledge of practice about EL strategies to increase students' access to and success in rigorous academic content in HS. By leveraging the prior success of SAILL and existing professional learning opportunities in SFUSD, this project will: 1) conduct a quasi-experimental design study of the field-initiated SAILL program in SFUSD; 2) articulate program structures and practices to support implementation of an instructional model and teaching strategies, for: (a) integrating English language development (ELD) into rigorous content; (b) embedding CS in math/science courses as a way to introduce and prepare students for CS; and 3) broadly share the program model, research findings and lessons learned from SAILL for replication in new school districts.

A. Significance

SFUSD is California's 7th largest district with 58,000 students, 28% or 16,000 are EL, ½ speak Spanish, and ¼ speak Chinese. Beginning in 2008, SFUSD implemented new graduation requirements for all students to align with the University of California's rigorous college preparatory required coursework (UC a-g). As a result, specific subpopulations fell "off-track" to

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graduation, thus SFUSD created summer and evening courses for credit recovery, including

SAILL. When SAILL began in 2013, the EL graduation rate in SFUSD was 69% compared to

82% for all students. The On-Track Rate--a measure developed by SFUSD to track progress

towards graduation--was 35% for ELs and 67% for all students. A California State Auditor's

(2017) analysis indicated that "students attending school districts [like SFUSD] that establish

higher student expectations, coupled with relevant tools and student support, are more likely to

meet those expectations." The Auditor noted that 69% of SFUSD students completed college

preparatory coursework (compared to 21% and 30% in comparison districts) and recognized

SFUSD as an exemplar district in providing targeted interventions and significant support to off-

track students. Johnson (2018) found that, compared to matched students who did not participate

in SAILL, ELs in SAILL took an average of 1.156 more ELA, 0.392 more math, and 0.425 more

science classes during their first four years of HS. These findings suggest SAILL holds promise

for expanding ELs' academic access, and forms the rationale for this Early Phase EIR grant to

demonstrate that this state-recognized programming model is effective and worthy of replication.

A.1. National Significance: Why Focus on English Learners as High Need Group

Effectively and equitably educating ELs is one of the biggest challenges facing public

education today. Nationally, 4.6 million students are ELs (NCES, 2017). NAEP scores reflect

wide gaps between the academic achievement of ELs and non-ELs (NCES, 2011, 2017).

Nationally, only 63% of ELs graduate from high school, compared with the overall national rate

of 82% (Sanchez, 2017). Callahan (2013) found that ELs are about twice as likely to drop out as

native and fluent English speakers. This data demonstrates the need for a program like SAILL

that takes advantage of the underused summer semester and creatively combines English

language and content area instruction.

Research shows some of the achievement gap can be attributed to ELs' limited access to academic content (Callahan, 2005; Kanno & Kangas, 2014). Evidence suggests that ELs face persistent barriers to STEM learning (Johnson, 2017). ELs are particularly at-risk of inequitable access to rigorous instruction in core content (Umansky, 2018). HS ELs are less likely to take college preparatory classes, graduate in four years, or continue directly to four-year colleges. Because ELs are required to take multiple ELD classes, they have fewer opportunities to take advanced coursework. Indeed, in SFUSD during spring 2018, ELs enrolled in math only at 60% (despite a 3-year graduation requirement with >75% enrollment expected) and in science at 45%; whereas, non-ELs enrolled in math at 96% and science at 84%. Access is only one problem, success is the other—the D/F rate for ELs in math is 37% and in science is 29%. ELs need high-level academic curriculum combined with linguistic scaffolding that supports rigorous learning. These trends pose pressing problems for schools, and make the case for integrating effective EL strategies into teaching rigorous CS through Algebra & Physics in the summer.

As the EL population grows, so does concern over their underachievement poses a compelling national issue (Johnson, 2018; Saunders & Marcelletti, 2013). The SAILL model provides a rapid, relatively low-cost method of increasing HS EL language acquisition while increasing teacher efficacy to integrate ELD practices into rigorous academic content. The project address will these issues through curricular and instructional innovations that approach students' ELD as embedded in STEM domain-specific expectations within academic discourse in the classroom (NAS, 2017; Walqui & Van Lier, 2012).

A.2. Absolute Priority 1: Demonstrates a Rationale

SAILL uses two promising EL instructional recommendations validated through WWC reviews: 1) integrating oral and written English language instruction into content-area teaching,

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and 2) supporting student learning interactions through peer-assisted learning strategies (PALS). The former has strong evidence at the elementary and middle school level and should be transferable to HS (Baker et al, 2014). The latter has strong evidence for positive effects on reading fluency and comprehension outcomes for ELs and non-ELs in grades 3-6 (Gersten et al, 2007). While there exists a dearth of rigorous research on EL instructional practices in HS, arguably the WWC recommendations are applicable to HS teaching and learning (NAS, 2017).

Given the rigorous academic language expectations built into the Common Core State Standards and Next Generation Science Standards, ELs benefit from opportunities to develop English language skills in the context of learning disciplinary content. The language that students encounter in academic texts and tasks differs from written or spoken language in most everyday interactions, limiting their exposure outside of school (Schleppegrell, 2004). HS students must decode and produce oral and written language with increased specialized vocabulary, lexical precision, and syntactic complexity to explore and describe abstract concepts and phenomena (Zwiers, 2008). Therefore, ELs need instruction that intentionally focuses on how language works within a subject area, as well as ongoing interactive and guided practice that facilitates the development of multi-disciplinary academic language.

Promising techniques adopted by SAILL that promote oral and written language at the same time that students are learning new academic content include: (a) the strategic use of instructional tools such as teaching visuals and graphic organizers to help contextualize challenging material and make content comprehensible, (b) the explicit teaching of academic vocabulary, and (c) daily structured interactions in pairs or small groups to tackle subject matter through discussion and writing activities (Baker et al, 2014). SAILL students are grouped heterogeneously, based on English proficiency, academic background, home language and

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literacy level. These small groupings, coupled with collaborative PALS protocols, allow students to support peers with different ability levels or English language proficiencies and to work together on academic tasks in a structured fashion. Daily peer interactions extend the material already taught. These EL instructional strategies increase potential program success.

SAILL also proposes to demonstrate effective professional development (PD) for teachers of ELs. SAILL instructors participate in 49 hours of in-service PD, in which they learn and practice high-leverage EL pedagogical strategies to make the most of heterogeneous groups, including the use of peer-to-peer interactive strategies. PD for integrating Bootstrap adds another 21 hours for algebra teachers and 35 hours for physics teachers. Yoon et al's (2007) review of studies meeting WWC standards found that teachers receiving "substantial professional development—an average of 49 hours in the nine studies—can boost their students' achievement by about 21 percentile points" (p.1). Other SAILL PD strategies supported by that WWC panel include: summer workshops, follow-up sessions to reinforce main PD, and providing PD directly to teachers rather than using a "train-the-trainer" model. In addition, the proposed EIR study follows Yoon et al' (2007) recommendation to examine the impacts on both teachers and students, based on the assumption that "professional development's effects on student achievement are mediated by teacher knowledge and practice in the classroom" (p3).

A.3. Absolute Priority 3-Field Initiated Innovation-Promote STEM with Computer Science

Because ELs underperform due to both limited access to rigorous math and science courses during the year, and poor performance, SAILL's model intentionally integrated ELD into content. In a parallel summer credit recovery program for all students, SFUSD has been piloting the embedding of CS via Bootstrap into credit recovery Algebra as a way of engaging the disengaged student and providing exposure to CS not available to most HS schools. While ELs

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need to gain academic English, WWC evidence demonstrates strong evidence for integrating oral

and written English language into content area teaching. Though many Newcomer ELs arrive

with Limited or Interrupted Formal Education, students are not motivated by remedial courses

disconnected from today's job prospects. Thus, embedding CS in foundational math is engaging

and may help keep students in school and on-track to both graduation and access to medium- and

high-wage fields. CS will be added to the SAILL math curriculum, and with this grant, SFUSD

can invest in a Bootstrap continuation through Physics.

Bootstrap is an organization that partners with school districts to support CS for all

students. 75% of Bootstrap teachers do not have a CS degree. Seventy-five percent of Bootstrap

teachers do not teach standalone CS courses. Bootstrap is designed to integrate CS into existing

courses. Using Bootstrap in the summer may motivate Bootstrap trained teachers to use

Bootstrap during the year.

Students will build upon the introduction to CS via Bootstrap by taking advantage of

other CS opportunities offered by SFUSD partnerships with City College of San Francisco

(CCSF), a two-year community college, and San Francisco State University (SFSU), a four-year

college. In collaboration with SFSU, SFUSD won a three-year NSF grant—Computer Science

For All in San Francisco—with a goal of addressing a lack of diversity in CS through rapid

teacher PD to deepen their CS knowledge and build an inclusive CS environment. Beyond

Bootstrap in credit recovery, SFUSD is expanding CS courses, including CS embedded into

media arts and traditional CS such as Advanced Placement. SFUSD partners extensively with

CCSF to establish CS offerings at high school friendly times, and to provide bus transportation

from SFUSD schools to CCSF campuses. CCSF offers one-week Cyber Camps which students

can take after SAILL during the same summer. SAILL students will also be recruited into EL

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cohorts to CS Summer Internships combined with pre-CS SFUSD or CCSF coursework. By building upon these initiatives, dual enrollment in CS-related courses at CCSF has changed from 2 students in 2015 to 108 in 2018, primarily for ELs. Without SAILL and the introduction to CS, ELs would be unlikely to ever gain access to CS at their home school.

Besides supporting Newcomer ELs with SAILL, the College & Career Readiness department seeks to make it possible for underrepresented students to participate in dual enrollment in fields that may lead to medium- or high-wage fields. Therefore SAILL participants will be offered academic support services during the year and follow up to additional enrichment in future summers. Schools with large percentages of ELs will be offered support for dual enrollment and summer applications to special programs, particularly in CS.

With this Early Phase EIR grant, we hope to demonstrate that integrating ELD into math/physics with CS is an effective strategy for improving students' English language proficiency, achievement in English, math and science, and access to CS. With this grant, we will document the procedures for other school districts to implement effective summer learning for ELs, which includes instruction and access to rigorous math, science and CS.

A.4. Development of promising new strategies or alternatives to existing strategies

SAILL's rationale is built on evidence of effective language pedagogy that places importance on language and content integration. Students and teachers are active participants in language learning processes that build on students' prior knowledge and experiences. Language skills are most effectively learned in context through purposeful, language-rich, experiential study. In the program, every teacher teaches content and every teacher teaches language. Projects include clear content and language objectives. SAILL aligns with the California 2012 ELD Standards and draws on key principles of the Internationals Network for Public Schools model,

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which offers a strength-based approach to EL education (García & Sylvan, 2011; Kessler, Wentworth, & Darling-Hammond, 2018). Internationals partnered with SFUSD to create an Internationals school on the West Coast in 2009 and used a Federal i3 grant to help an existing high school build an Internationals pathway within their school since 2013. The Internationals principles built into the SAILL design include:

1. *Integration of language and content* to facilitate the growth of language skills and content area literacies through interdisciplinary inquiry and project-based learning.

2. *Heterogeneous student groupings* and *collaborative structures* that build on the strengths and experiences of all learners and allow students to teach and learn from one another, in particular to use peer-assisted learning strategies

3. Professional development that reflects a *One learning model for all learners.* Teacher PD reflects the same dialogue and collaborative protocols practiced in the classroom.

These elements are also supported by the SIOP model (Echevarria, et al, 2008; Echevarria & Graves, 2007). The curriculum is project-based and student-centered, drawing on students' prior experiences and providing ample room for student discussion. Heterogeneous grouping allows students to teach and learn from one another. When small groups negotiate the meaning of the content and clarify understanding, the language becomes a vehicle for deepening content comprehension. To discuss the content, teachers provide students with the necessary vocabulary and language structures. Language is taught as a means to improve content understanding. To teach peers, students must increase their levels of understanding. Lower ability students tend to work best in mixed groups, medium ability students in homogeneous groups, and for higher-ability students, group ability levels make no difference (Lou et al, 1996). The challenge for teachers is to organize the groups so students benefit from the collaboration

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and exert joint effort. When this occurs students can study a problem in depth and the teamwork supports the individual needs and skills' levels. An interdisciplinary project centered on a common theme helps to broaden students' understanding of the content, providing them with more opportunities to use language to explain that content. These lessons requiring group work may lead to developing higher level thinking skills, retaining content for a longer period of time, using a wider range of resources, employing creativity and problem-solving, and developing social skills and academic language (DeFazio et al, 1993).

Along with articulating the findings about content-embedded academic language for HS ELs, this project seeks to demonstrate a STEM learning model that increases EL access and success in rigorous math/science content; increases their likelihood of on-time high school graduation by earning credits; and advances their ELD. Most EL funding requires school districts to supplement not supplant ELs' opportunities, so EL funding could likely be used to operate a summer program, like SAILL. Teachers participate in a unique set of PD with our model because they learn new ideas daily, apply them daily and revise them daily. During the school year, PD is not easily structured to occur simultaneously with teaching. Trainings may be held during the school year with substitutes *(where the teacher is often overwhelmed with lesson planning for the current course, not future thinking)* or during the summer when school is not in session *(where the teacher is thinking ahead to what might be taught next month)*. In this model, teachers learn EL strategies intensely right before the summer program, then daily during the program. They embed what they learn in PD into tomorrow's lessons. Teachers are encouraged to take risks with implementation, from their usual routines, because sample strategies, handouts and protocols will be prepared in advance by central office staff using Writing is Thinking Through Inquiry (WITsi), the SFUSD year-round PD model for teachers of ELs not just Newcomers.

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Beyond the impact on the summer students, previous SAILL teachers have reported applying what they have learned from SAILL in their regular classroom during the academic year.

This project seeks to address ELs' language development needs in conjunction with their mastery of math and science, while also fundamentally changing the setting for teacher PD. Because teachers will gain facility with strategies for integrating language into content, we expect to increase EL access to more challenging academic courses during the academic year because teachers will feel confident and use EL teaching strategies. Providing ELs access to core math and science courses in the summer might reverse trends in which ELs are underrepresented in upper level classes and are excluded from core academic coursework (Umansky, 2016).

B.1. Project Design-Specific, measurable goals and outcomes

In 2014, SFUSD's Multilingual Pathways Department (MPD) and College & Career Readiness (CCR) departments launched SAILL, a 5-week summer program for integrated language learning, designed to support credit recovery and increase On-Track status for 400 Newcomer HS students per year. SAILL offers a meaningful transition to the US for newcomer students using collaborative, interdisciplinary and project-based learning. SAILL embeds a powerful professional learning opportunity for teachers. This EIR project has four main goals: 1) Develop and implement SAILL curriculum and program; 2) Increase student academic growth, 3) Evaluate SAILL; and 4) Prepare modules for other districts to replicate SAILL.

B.1.1a-SAILL Implementation-Students

1. MPD & CCR register 400 Newcomers from all SFUSD HS for SAILL by working with counselors and teachers of classes for Newcomers.

2. Students are grouped heterogeneously into 4 cohorts of 100 and further into classes of 25, based on home school, age, primary language, length of time in the US, English language

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proficiency, home country, and GPA.

3. Students attend 25 days, with 5.5 hours of instruction daily, in June and July, to earn 10 HS credits, the equivalent of 2 semester courses. Free breakfast and lunch are available.

4. Students return to their home schools for the fall semester. SAILL counselors communicate with home school counselors about completed courses.

B.1.1b1-SAILL Implementation-Teachers

1. MPD & CCR recruits 4 teachers per each interdisciplinary cohort. Additional staff include MPD PD Lead Teacher, MPD Program Lead Teacher, Bootstrap Lead Teacher and 2 bilingual counselors. Teachers are also grouped heterogeneously by home school (particularly so that every cohort has an Internationals teacher who is well versed in the SAILL pedagogical techniques) and by EL experience (veteran EL, veteran without EL experience, new teachers, teachers who participated in WITsi PD).

2. MPD develops sample lessons and replicable handouts for instructional strategies to be used during PD and SAILL instruction.

3. Teachers participate in SAILL PD afterschool in April and May in 4 sessions of 3 hours each, then two full June days, before teaching 25 days. Every day, teachers participate in one hour of PD, sometimes by cohort, sometimes by subject (English, Bootstrap with Algebra or Science) and sometimes as the full 16 teachers. PD focuses on: (a) integrating English language into academic content (with half English and half math/science teachers), and (b) designing effective group lessons that use the collaborative structures supported by heterogeneous groups.

4. The 4 Bootstrap with Algebra teachers receive additional PD with 3 full days of training offered by Bootstrap, supported by SFUSD STEM instructional staff. The 4 Bootstrap

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with Physics teachers receive 5 additional days of PD. There are 3 available days in June between the spring and summer semesters to conduct the Bootstrap Algebra training, but not for the 5 days required for Physics, so Physics training will occur in August after the first EIR SAILL summer.

5. LEAD Teachers provide daily coaching to SAILL teachers, with time daily to debrief and incorporate feedback into tomorrow's lessons.

6. Teachers return to their home school, taking with them the teaching strategies they learned during PD and incorporated into their teaching repertoire daily.

B.1.1b2-Curriculum Leadership Development

Given the short five-week course of the summer program, MPD provides SAILL teachers with foundational curriculum so they all focus on instructional delivery instead of materials creation. The summer experience should provide SAILL teachers with a solid example of project-based curriculum, which they can then take back to their work with ELs at their individual school sites. Teachers also receive individual observation and coaching. Coaching can help teachers apply new skills (Joyce & Showers, 2002) and increase the fidelity of evidence-based practices (Kretlow & Bartholomew, 2010). In the PD leading up to the summer session, teachers establish individual development goals for the five weeks. Through class observations and prep-time meetings, the teachers will be supported in achieving these goals.

B.1.2-Goals and Outcomes--Students

See the Project Objectives Form and Management Plan for detailed objectives.

Goal: Improve district-wide academic outcomes for newcomer EL students	
Objectives	Performance Measures
Implement SAILL to integrate language into content	1.1a: By Summer 2023, 50% of SAILL participants will show **increased reading scores**, measured by RI 1.1b: By Summer 2023, 50% of SAILL participants will show **increased ELP** as measured by ELPAC 1.1c: By Fall 2023, 50% SAILL participants will demonstrate **increased ELA achievement**,

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	measured by CAASPP ELA
	1.1d: By Fall 2023, 50% SAILL participants will demonstrate **increased Math student** achievement, measured by CAASPP Math
Provide pathway for ELs to earn credits towards HS graduation including access to math, science, and CS	1.2a: By Summer 2023, 70% of SAILL participants will show an **increased graduation rate**
	1.2b: By Fall 2022, 70% of SAILL participants will show an **increased on-track rate**
	1.2c: By Fall 2022, 50% of SAILL participants will demonstrate an **increased GPA**
	1.2d: By Fall 2023, 50% of SAILL participants will demonstrate **increased access to college preparatory math and/or science courses**.
	1.2e: By Summer 2023, 25% of SAILL participants will show **increased access to pre-CS or CS courses** in SFUSD or community college

B.1.2-Goals and Outcomes--Teachers

By participating in SAILL, teachers improve their pedagogical skills in teaching various levels of ELs, learning how to best integrate language through content instruction, and to maximize collaborative interactions through heterogeneous groups. This program aims to build a cadre of teacher leaders with the instructional expertise to teach ELs across SFUSD.

Goal: Create a PL space for teachers to integrate language & content through instruction and curricular supports	
Objectives	Performance Measures
Teachers will learn how to integrate language into content	2.1a: By Summer 2023, 70% of SAILL teachers will **use program principles and strategies** in SAILL, including common classroom structures, structured partner talk, academic conversations and scaffolds to access complex text, measured by survey and observation.
	2.1b: By Summer 2023, 80% of SAILL teachers will report a high level of self-efficacy **implementing the SAILL curriculum**, measured by teacher survey
	2.1c: By Fall 2023, 70% of SAILL teachers will report **integrating SAILL strategies and principles in their professional practice** and using them during the academic year
	2.1d: By Fall 2023, 25% of SAILL teachers will **teach a greater pupil load of ELs** during the academic year, measured by course data
	2.1e: By Fall 2023, 25% of ELs in SAILL teachers' academic year classroom will **increase on-track status**
Algebra & Physics teachers learn how to integrate Bootstrap & ELD into curriculum	2.2a: By Fall 2022, 50% of SAILL math/science teachers will report a high level of self-efficacy **integrating the Bootstrap curriculum into SAILL**, measured by teacher survey
	2.2b: By Fall 2023, 25% of SAILL math/science teachers will report high level of self-efficacy **integrating the Bootstrap curriculum into the academic year**, measured by teacher survey
	2.2c: By Fall 2023, 25% of ELs in SAILL teachers' academic year classroom will **increase passing rates in math and science courses**

B.1.3-Evaluating SAILL.

B.1.4-Disseminating SAILL modules

To meet our last goal of sharing SAILL with other districts, the key steps include: (a) documenting program design including funding; (b) documenting curriculum and instructional strategies; (c) summarizing early then overall findings related to student and teacher outcomes;

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and (d) presenting in state and national forums and offering demonstration visits.

(a) Project Design: Overall program design will be described retrospectively as well as during the years of the EIR grant, including the various funding models that have made SAILL possible. The collaboration between school district departments and between central office and school sites will be described to allow for a rigorous summer program to be built and sustained.

(b) Curriculum & Strategies: SAILL has been implemented by different MPD Leads since 2014, with some returning SAILL teachers. We have already been considering how new people implement SAILL. The essential structures, functions and methods for providing PD to teachers will be articulated and documented for replication by others. Key strategies and sample curriculum will be provided.

(c) Early and overall findings will be prepared as evidence of successful EL programming to encourage other districts to consider a SAILL implementation in their district.

(d) To share the successes of SAILL and invite other districts to replicate SAILL, curriculum deliverables and research findings will be disseminated on the www.sfusd.edu website, and shared at local and national conferences, education journals, and scholarly and practitioner conferences. A follow-up article can be shared with EdWeek, through a partnership with Stanford. Initial conference proposals will focus on those with an EL audience including the bilingual education/EL strand of the Council of Great City Schools (which brings together 74 of the nation's largest urban school districts), NABE (National Association of Bilingual Education) and CABE (California Association of Bilingual Education). In addition, we will submit research findings to be presented at AERA. Subsequent proposals may target NCTM (National Council of Teachers of Mathematics), NSTA (National Science Teachers Association) and the Carnegie Foundation for the Advancement of Teaching Annual Summit on Improvement in Education, to

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reach larger audiences. We will also disseminate these promising ideas to partners in the regional County Offices of Education, in Alameda, Marin and San Mateo. If warranted, we will submit our results for publication in peer-reviewed journals.

Then we will develop demonstration visits for other districts' administrators to learn about program design and teachers to learn how to implement effective EL curriculum in the summer. Because SFUSD is a also County Office of Education, we can host our own professional development. Though we would charge a nominal fee to participate, the costs would go towards any costs related to the PD such attendees' meals, facilities or overtime for presenters. The main SFUSD leaders involved in this grant have been leading district-wide PD for years. SAILL has also been visited annually for many purposes including to demonstrate to SFUSD leaders how to structure effective EL instruction and to potential funders of SAILL.

B.2-Quality of Project Design, Conceptual Framework, Logic Model

See Logic Model in Appendix G

B.3-Project Design-Procedures for feedback and continuous improvement

Because this project seeks to articulate the key features of SAILL to support replication, the design inherently involves feedback and improvement. We will use the Improvement Science process to ensure continuous improvement and establish a replicable model with strategies for the curricular and pedagogical supports needed for ELs to meet the language demands of different subject areas, and thus, improve access to academic content, including Computer Science. Over the years, we have already been using the Improvement Science process as we have refined SAILL from a small pilot to an institutionalized summer program for ELs. Improvement Science uses disciplined inquiry to systematically study, learn and apply changes to produce greater impact (Bryk, et al, 2015). Achieving impact reliably and at scale requires

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dedicated effort and knowledge coordinated across multiple parts of the system. Improvement Science asks: *What are you trying to improve? How will you know if you have produced an improvement? What changes can you make that will produce improvement?*

CCR's Data Analyst and Manager will trigger formal Improvement Science process meetings, providing the view of both an insider (SFUSD employee) and outsider (not working directly on SAILL) to encourage us to participate in a results-oriented cycle of inquiry. In addition to logistical, curricular and evaluation meetings, formal meetings about improvement will occur: before SAILL (Oct, Jan, Apr); during (June, July); and after (August). The approach will consider all aspects of SAILL from student and teacher recruitment to lesson plans and instructional strategies, and logistics such as lunch schedules.

The daily PD hour in SAILL provides continuous opportunities for growth. SAILL program leaders will work closely with SAILL teaching teams to gather critical feedback on the organizational and pedagogical challenges that arise in practice, so that successes, gaps, opportunities, and threats to success can be identified early and addressed collaboratively.

Feedback from demonstration visits will be incorporated into both SAILL design as well as the protocols for the visits themselves.

Rockman et al (REA), SAILL's independent evaluator, will support continuous improvement by applying formative and summative evaluation approaches to systematically inform the project team's decisions and actions on program policies and practices. REA will participate in quarterly leadership meetings to help build consensus, gather feedback, and tackle issues. By establishing and maintaining transparent processes, the aim will be to use multiple forms of data to inform and adjust implementation as needed, while attending to program impact. To ensure a smooth implementation, SFUSD will convene a monthly leadership meeting to

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ensure objectives and outcomes are on schedule and on budget.

C.1. Management Plan, Roles, Responsibilities, Timeline

SFUSD MPD & CCR have shown the capacity to effectively operate SAILL by successfully managing the program since 2014, including operations, budget, and fundraising. We will now focus our efforts by evaluating and replicating the programming.

For detailed Management Plan with goals objectives, outcomes, milestones, and persons responsible, see **Appendix I.**

C.2-Management Team: Qualifications

To ensure the successful implementation of this EIR grant, a highly experienced team has been assembled. **Jennifer Fong, EdD,** is the Executive Director of College & Career Readiness for the SFUSD Department of Curriculum and Instruction, where she oversees the district's High School Credit Recovery program, AVID, dual enrollment and Pre-Educator Pipeline. Previously, as Supervisor of Multilingual Pathways, she oversaw all secondary EL services. Dr. Fong is an effective program manager, conceiving of or inheriting projects and expanding them with outstanding results. Dr. Fong has managed multiple state and federal grants with success. Dr. Fong will oversee the project as co-Project Manager and coordinate with the external evaluator. **Amy Gottesfeld** is the Supervisor of secondary Multilingual Pathways. With 20+ years of experience, Gottesfeld is an expert in literacy and supports for emergent bilingual students, professional development for teachers, and curriculum design. She is a demonstrated leader of strategic partnerships and program development, and an effective facilitator of large-scale projects and program implementation. She will serve as co-Project Manager.

Jan Bautista is an SFUSD MPD Teacher on Special Assignment. She has extensive experience serving Newcomer EL students, including teaching at an Internationals school and

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providing staff professional development. She has been the MPD Lead Teacher for SAILL for two summers. She will coordinate the summer program. **Bryan Twarek**, is the Computer Science Program Administrator for SFUSD, where he leads all activities to improve CS education for K-12 students. He will arrange for Bootstrap PD and then lead the CS professional development related to using Bootstrap in Algebra and Physics. **Julie Yu**, is Data Analyst and Manager of College & Career Readiness, where she created an On-Track Status measure used by SFUSD. She leads data-based reviews and adjustments of programming.

Rockman et al (REA), an independent research and evaluation company, will conduct the external evaluation. REA has evaluated the impacts of large-scale educational initiatives, as well as links between implementation and impact, and has successfully multi-year external evaluations for federally funded efforts to improve both teaching quality and student achievement through professional learning initiatives that focus on English language acquisition, including projects funded through the Investing in Innovation (I3) and National Professional Development (NPD) programs. Through past studies, REA has expertise in conducting research that meets the WWC standards. **Adam Moylan, PhD**, has extensive experience running large-scale, rigorous evaluation studies. **Vanessa Vega, PhD,** brings expertise in quantitative and qualitative methods to assess research-based practices. **Alex Gurn, PhD** has experience in conducting mixed-methods research, as well as teaching EL students.

C.3-Sustainability of Funding

To date, CCR & MPD have juggled a variety of funding sources to operate SAILL for five years with continuous adaptations to strengthen the program. With strong results, funding has been established for a basic summer program for ELs via a range of stakeholders, so that SAILL will be able to continue post-EIR. In particular, local funds are available from a voter

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initiative and City Charter that will be in place until 2040-41. Additional PD and extras for students such as health and wellness services are provided when grant funding is available.

SFUSD remains committed to being a leader for equity and English Learners across the United States and will present at Council of Great City Schools regularly. Without grant funds, offering PD to outside districts becomes a challenge. A full-scale dissemination plan could continue if SF County Office of Education charges for standard fees for PD and demonstration visits related to SAILL, to at a minimum, cover the costs of staff to work in the summer to host the PDs and visits. SAILL materials will continually be updated for our own usage in our summer programming and could be made publicly available on our website.

Because staff turnover is a significant concern with the rising cost of living in SFUSD, all key personnel continually train potential replacements as well as document implementation procedures to ensure that SAILL (and other projects) outlast the individuals involved.

D. Quality of Project Evaluation

D.1 Designed to Meet the WWC Standards With Reservations

The project's external evaluation will be conducted by Rockman et al (REA), an independent research firm with experience studying education reforms designed to improve teaching and learning in culturally and linguistically diverse settings. This evaluation examines student and educator level outcomes and the full range of implementation of SAILL. The evaluation comprises: 1) an implementation study to explore the nature and implications of program implementation, and 2) an impact study that tests the effects on student outcomes. The evaluation will provide an assessment of the project goals and objectives over time, and whether or not observed changes can be attributed to the proposed intervention.

Implementation Study (Year 1-Year 5). In the project's first two years, the

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implementation study will focus on formative feedback about student and educator participation, progress toward objectives, and recommendations for the iterative improvement of the SAILL curriculum and instructional strategies. As the project advances, the implementation study will explore how key SAILL components influence changes in teaching and student learning. Evaluation activities include repeated surveys, structured observations, and in-depth interviews and focus groups with a range of constituents. Findings will help to explain intended or unintended effects observed in the impact study and to determine whether the outcomes may be attributed to SAILL and not to external factors (Harn, Parsi, & Stoolmiller, 2013). The implementation study research questions are:

RQ1: To what extent do the professional learning (PL) components give teachers the skills and tools they need to implement the SAILL curriculum?
RQ2: To what extent do teachers improve their knowledge and skills to implement targeted EL instructional practices?
RQ3: To what extent do teachers employ targeted EL practices in their teaching practice, and how much does implementation vary by subject and teacher?
RQ4: What factors facilitate effective implementation of SAILL, and what challenges need to be addressed to support replication in other districts?

Impact Study (Year 3-Year 5). The impact study utilizes a quasi-experimental design with a matched comparison group to test the proposed intervention effects on teacher and EL student outcomes. Due to ethical considerations of the recruitment and assignment process, random assignment is not deemed feasible. REA will compare outcomes among participating EL students to a matched group of eligible EL students who did not participate in SAILL or anything

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similar. The results will be generalizable to similar students and teachers within SFDUSD and districts with similar characteristics. The impact study research questions are:

RQ5: Do EL students in SAILL demonstrate significantly greater growth than similar peers in a matched comparison group on (a) nationally normed, formative assessments of reading level, (b) state standardized assessments of English language proficiency, and (c) state standardized assessments of English Language Arts (ELA) and Math achievement?

RQ6: Do EL students in SAILL demonstrate significantly greater growth in their high school GPA than similar peers in a matched comparison group?

RQ7: Does the number of SAILL teachers that EL students have during the school-year mediate the effect of EL students' participation in SAILL on growth in state standardized assessments of (a) English language proficiency, (b) ELA or math achievement, and/or (c) GPA?

RQ8: Do SAILL teachers demonstrate significantly greater increases in knowledge, skills, and confidence than teachers at comparison schools about implementation of targeted EL practices?

Matching Process. REA will identify an equivalent comparison group of students from within the school district who have not participated in SAILL or anything similar and who are comparable on key baseline characteristics. Equivalency will be established using data derived from the same measures as the student achievement outcomes. REA will match students based on Scholastic Reading Inventory (SRI) pretest scores, English Language Proficiency Assessments for California (ELPAC) pretest scores, Smarter Balanced Assessment Consortium (SBAC) ELA and Math pretest scores, GPA, and key demographic variables (e.g., EL, grade-level, ethnicity/race). After outcome data has been gathered for the analytic sample, REA will examine baseline equivalence between the intervention and comparison groups. If differences in

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mean baseline characteristics of the groups are greater than 5% and less than or equal to 25% of the pooled standard deviation in the sample, REA will employ appropriate regression covariate adjustments that control for individual-level baseline characteristic(s) on which the groups differ.

Sample. Following WWC standards, the analytic samples will be limited to cases with non-missing values of the baseline and outcome measures. Combining data across grade levels during the third and fourth year of the project will yield an estimated 400 students for the treatment condition and 400 for the comparison group, accounting for an estimated student attrition rate of 30 percent. For student outcome analyses, this sample size will provide a minimum detectable effect size of .175 assuming power=0.80, and pretests explaining 20 percent of outcome variance (Doug & Maynard, 2013).

Analyses. The outcome analyses will use hierarchical linear modeling (HLM) to explore changes in responses from pre-to-post intervention across intervention and comparison groups (Raudenbush & Bryk, 2002), using a one-level analytic model with fixed treatment effect and fixed block effects (Appendix I). REA will conduct separate HLM analyses for each outcome measure. Mediation analyses will be performed to examine whether SAILL- trained teachers during the school year mediates the effect of students' participation in SAILL on academic achievement outcomes. REA will use multi-level mediation models to partition sources of variance into individual components and cluster-level components, and then estimate paths using OLS and HLM models (Krull & McKinnon, 2001; Rockwood & Hayes, 2017).

D.2 Valid and Reliable Performance Data on Relevant Outcomes

Implementation Measures and Procedures. REA will assess growth in the capacity of teachers, regarding their knowledge of and self-efficacy in instructional strategies that support EL learning and teachers' classroom implementation of those strategies. Data sources to assess

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teachers' professional learning outcomes will include structured observations, pre-post surveys, as well as interviews and focus groups with teachers, administrators, and students.

Each year at the end of the SAILL program and the school year, REA will conduct surveys and focus groups with SAILL teachers, as well as focus groups with program leaders and with students. These data will include insights about: (a) variations in implementation of curriculum and teaching practices, including information about program challenges and successes; (b) perceived impacts on teacher practices and student learning, and the factors that may have contributed to the process; (c) participation in a community of practice; (d) lessons learned; and (e) recommendations for improvement. REA will develop and pilot instruments, assessing content validity through expert review (Gehlbach & Brinkworth, 2011) and response process validity through cognitive interviews (Bass, Drits-Esser & Stark, 2016).

Impact Measures and Procedures. REA will use student-level scores from Scholastic Reading Inventory (SRI), a nationally normed, formative assessment, and from summative state tests to measure growth in reading level, English language proficiency, and academic achievement (RQ5, RQ6, & RQ7), administered annually by SFUSD. Distal outcomes will be measured by the ELPAC, the SBAC English Language Arts and Math Assessment tests, and high school GPA. For GPA data (Q #2), REA will use district collected student grade data on required courses for high school graduation ("a-g" course requirements). To examine the potential mediating effect of having a SAILL-trained teacher throughout the school year on academic achievement outcomes, REA will test whether the number of SAILL-trained teachers that each student has throughout the school year mediates the effect of SAILL participation on ELPAC and SBAC ELA and Math Assessment test scores, and GPA (RQ7). For teacher report data, REA will administer a survey at the baseline, at the end of the summer program, and at the

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end of each school year. This collaboratively developed survey will assess teacher perceptions about changes in teacher skills, and confidence in implementing EL instructional practices (Q #4). The survey measures will be adapted from existing instruments and aligned with the *CA ELA/ELD Framework* and *CA ELD Standards*. REA will pilot the measures before the study.

D.3 Project Components, Mediators, and Outcomes, and Implementation Thresholds

REA will conduct observations of SAILL teachers' classrooms during the summer and the school year, randomly sampling classrooms across content areas, in order to examine target instructional practices and student learning throughout the year. REA will collaborate with program leaders to design a SAILL Observation Protocol and Fidelity Matrix, adapted from SFUSD's *Continuum for English Language Development Effective Practices Observation Rubric* (Appendix I). The fidelity matrix will include information about data sources, data collection schedules, scoring methods, and the thresholds (minimum score levels) for meeting fidelity. For each key component of the SAILL logic model, there will be a reported fidelity score, and an indication if the score meets the established threshold for fidelity.

Throughout the impact study, REA will assess implementation fidelity (Carroll et al, 2007). Using the SAILL Fidelity Matrix, evaluators will conduct structured classroom observations of randomly sampled SAILL teachers and non-SAILL teachers and compare the targeted EL instructional practices. Inter-rater reliability will be measured, aiming for minimum 80% agreement on codes (Stemler & Tsai, 2008). The data will serve to compare with teacher self-reports via surveys and interviews and program staff perceptions via interviews.

D.4 Guidance about Replication in Other Settings

Examining the factors that enable or impede implementation will be a key focus of the implementation study (RQ4). REA will provide formative feedback to program and district

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leaders in regular meetings and periodic research memos at key stages, summarizing findings

from evaluation activities. Results will be used to formatively assess implementation, to facilitate

refinements to SAILL materials and strategies, and to develop a rich understanding of the

context surrounding the intervention and comparison groups, so as to inform the findings and

questions that emerge from the impact study, as well as the conclusions that can be made about

the effectiveness of the intervention. To disseminate findings that support replication efforts,

REA will share evaluation methods, implementation, and outcomes via numerous outlets such as

the program website, presentations at AERA and other conferences, and EIR annual meeting. At

the project end, REA will synthesize findings about impact, variation in implementation,

enabling factors, and strategies for scaling. REA will work with EIR technical assistance to

communicate updates and submit required plans. REA will submit annual reports and a final

report that synthesizes the evidence on implementation and impact, and describe how the

program is working, for whom, and under what conditions.

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