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SEL MEASUREMENT IN DCYF YOUTH PROGRAMS

Report on Summer Together Pilot of SELweb

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Introduction

In Summer 2023, the San Francisco Department of Children, Youth & Their Families (DCYF) engaged Policy Studies Associates (PSA) to serve as evaluation partner in the pilot implementation of SELweb, a social-emotional learning (SEL) competency measurement tool developed by xSEL Labs.[1]

The report is intended to inform DCYF's consideration of how to incorporate an SEL measurement tool into future youth programs. The report is organized around feedback on the use of the SELweb tool during Summer Together programming in six sites as well as analyses of growth on the SEL competency domains measured by SELweb. It concludes with recommendations and considerations for future use and scaling efforts.

- **Overview of SELweb.** This section provides background information on the SELweb tool developed by xSEL Labs.
- **Overview of SELweb Pilot.** This section summarizes the design and implementation of the pilot of SELweb in Summer 2023.
- **Lessons Learned from Communities of Practice**. This section presents feedback from pilot sites on their implementation of SEL strategies, on their experience implementing SELweb, and on the use of the data generated by SELweb.
- **Analysis of SELweb Data**. This section summarizes PSA's analysis of findings and growth at pilot sites.
- **Considerations for Future Use and Scaling**. This section presents considerations for DCYF should it choose to continue to use (and possibly scale) SELweb or another SEL assessment tool.

Overview of SELweb

SELweb is a web-based SEL competency assessment developed by xSEL Labs. SELweb is a direct assessment that allows children to demonstrate their skills by solving challenging problems, which yields an objective measure of competence. SELweb was developed with support from the Institute of Education Sciences and was created, field-tested, and validated over a four-year grant period. SELweb has demonstrated: (1) high score reliability, (2) strong and consistent association with measures of academic and behavioral functioning, (3) strong evidence of construct validity, and (4) unbiased measurement (measurement equivalence) across sex, race, and language form.[2]

The Summer Together pilot used two versions of the SELweb assessment: Early Elementary (EE) in grades K-3 and Late Elementary (LE) in grades 4-8. The EE assessment includes subtests designed to measure how well participants understand others' emotions and perspectives, how well they solve social problems, and how well they themselves manage emotions. The LE

[1] https://xsel-labs.com/assessments/selweb/

[2] McKown, Russo-Ponsaran, Johnson, Russo, & Allen, 2016; McKown, Kharitonova, & Russo-Ponsaran, 2023.

assessment includes subtests that measure those same competencies and are developmentally appropriate for the late elementary and middle school grades.

Both assessments can be completed in one or more sittings and are available in English and Spanish. SELweb is designed to be administered on any device with an internet connection and a web-browser. Participants can log in to the assessment—or an adult logs them in on their behalf—at a dedicated URL (www.selweb.com). Participants can independently navigate through the assessment on a desktop, laptop, tablet, or Chromebook. Completing the SELweb assessment takes approximately 30 minutes.

The SELweb assessment is audio-narrated and illustrated and requires no reading skills to complete. Assessment instructions are provided to children by a friendly animated host character serving as the narrator. Tasks are performance-based, requiring participants to show what they know. For example, to assess participants' understanding of others' emotions, a key component of CASEL's "Social Awareness," participants are presented with pictures of faces and must indicate whether each face is happy, sad, angry, scared, or just okay. There is a right and a wrong answer for every item. In this way, SELweb avoids the potential biases inherent in self-report surveys and teacher rating scales. Item scores are saved as participants complete the assessment. The assessment yields five scores—one for overall performance, one for emotion recognition, one for social perspective-taking, one for social problem-solving, and one for self-control.

xSEL Labs generates interactive, web-based reports that include summaries of performance at the site and individual participant levels. Individual participant reports show student performance across the competence areas assessed. Downloadable pdf summary reports are incorporated into the interactive reports. When participants have completed more than one time-point, plots showing change over time are incorporated into the reports.

Overview of the SELweb Pilot

DCYF has prioritized social emotional learning (SEL) as a goal for youth programs, including Summer Together, and engaged PSA to conduct a pilot of SELweb as part of its efforts to identify an appropriate measurement tool to assess the SEL outcomes for youth in DCYF-funded programs. Of particular note, SELweb was validated by xSEL Labs in traditional school settings and scheduled to be administered over the course of a school year. Therefore, the pilot was partly an exploration of the appropriateness and feasibility of using SELweb in community-based settings such as Summer Together and over the shorter, six-week period of summer programming. The pilot was also an opportunity to receive feedback on the relevance and utility of the assessment data from programs.

In Spring 2023, DCYF recruited Summer Together sites to participate in the SELweb pilot. PSA facilitated a virtual meeting to provide an overview of the SELweb platform and expectations for the pilot to the potential Summer Together pilot sites. Criteria for participation in the SELweb pilot included:

- Enrolling a consistent group of participants for at least six weeks of the summer
- Designating a SELweb Site Lead (SSL) as a primary point of contact for the pilot

- Having appropriate equipment to pilot SELweb, including sufficient desktop computers/laptops/Chromebooks/iPads or tablets, headphones, and reliable internet access (DCYF provided technology for sites if needed)

In May 2023, six Summer Together sites agreed to participate in the pilot. The participating sites varied in size, serving anywhere from about 50 to 250 students. The majority hosted full-day summer programming (i.e., six hours of programming at minimum). Four of the programs operated in school buildings, and two in community-based locations. Five of the six pilot sites served participants who took the Early Elementary (EE) assessment, and five administered the Late Elementary (LE) assessment.

Site Name	Early Elementary SELweb Assessment	Late Elementary SELweb Assessment
Telegraph Hill Neighborhood Center	X	
Youth First	X	X
Francisco Middle School Beacon		X
R.O.C.K.	X	X
MNC Mission Girls	X	X
Up On Top	X	X

The use of SELweb requires xSEL Labs to register individual students in the platform; each student has a unique login to enable tracking of their pre-post data and to generate individual data reports for sites. After signing a data sharing agreement with xSEL Labs, sites submitted a roster of students to DCYF for the agency to add (where possible) demographic information about each student. DCYF then submitted those rosters to xSEL Labs on behalf of sites. xSEL Labs generated a username and password for each student and returned that information to each participating site. PSA worked in collaboration with xSEL Labs to develop guidance for how each site could add newly registered students to the platform themselves.

Pilot sites attended a virtual orientation collaboratively led by PSA and xSEL Labs. This orientation included an overview of the SELweb platform, as well as discussion of the logistics for the use of the tool in Summer Together sites. Sites were provided with demo logins for staff to take the SELweb assessment as if they were students and to get a feel for the modules. Resources provided to sites include a document detailing SELweb items and *Understanding SELweb EE/LE Score Reports*, which are comprehensive written guides to assist with reading and understanding the score reports for the two SELweb assessments. Sites were also given sample score reports for each assessment (EE and LE), which featured de-identified student data and served as illustrations of what score reports look like once they have been generated and uploaded for online access. In addition, xSEL Labs provided post-assessment resources for sites

to leverage, which included domain-aligned items such as short five-minute lessons, curriculum alignments, and ideas for staff to use in response to takeaways from student assessment data.

In the Summer Together pilot, SELweb was administered twice, as a pre- and post-assessment of SEL competency. Sites were directed to administer the pre-assessment during the first week of programming and the post-assessment during the final week. As part of the virtual orientation, PSA and xSEL Labs reviewed suggested timelines for assessments as well as necessary elements to consider ahead of the initial administration (e.g., appropriate adult supervision, adequate technology). Over the course of the pilot, site directors and SSLs received technical support (e.g., login troubleshooting) via email from a member of the xSEL Labs team and reminders and thought partnership via email from the PSA team. The Communities of Practice (COP), which is discussed below, also served as a platform for discussing and planning for administration. The SELweb platform's annual maintenance occurred during the final weeks of Summer Together programming, so PSA and xSEL Labs communicated directly with SSLs to ensure students had access to the archived version of the site to complete their pre-assessments.

Participating Summer Together sites received site level reports as well as individual student reports after both the pre-assessment and post-assessment. PSA received de-identified student-level data from xSEL Labs at the conclusion of the pilot.

Lessons Learned from the Communities of Practice

Participating Summer Together sites were invited to participate in three virtual Communities of Practice (COP) led by PSA over the course of the pilot, designed to bring together the pilot sites as a cohort to share their experiences, share best practices, problem solve, and dive into SELweb data:

- COP #1 (June 2023): Using Your Pre-Assessment Data
- COP #2 (July 2023): SELweb Data & Resources in Practice
- COP #3 (September 2023): Utilizing Post-Assessment Data

SEL Implementation in the Pilot Sites

The Summer Together sites that volunteered for the SELweb pilot were committed to supporting SEL in their programs. In COP, the pilot sites mentioned ways in which they incorporated SEL strategies into summer programming. This provides some context for level-setting the expectations of growth on the competencies assessed by SELweb over the course of a summer program:

1. **Intentional incorporation of one-on-one and small group interactions as a strategy for fostering SEL growth among participants:**

    - "[Making space for] one-on-one interactions between adults and students rings true for me, for our program."

    - "We have a lot of adults, a pretty good ratio, and then [even more] if we include the high school students. There are daily check-ins and checkouts

during the program and then weekly meetings about what's happening with the students."

- **"**Breaking our groups up into smaller groups has definitely allowed a lot of growth from the staff not feeling overwhelmed and also from the kids being able to open up."

2. **Prioritization of staff wellbeing as essential for SEL growth among participants.** For example, one site leader commented: "I really want my team to be more intentional with themselves first, because you can't address or even try to attempt to help students if you can't help yourself. I'm more intentional about making sure the wellness of my team is there on a daily basis and then making sure that translates in addressing and allowing our kids to grow as young people."

Pilot sites also reflected on challenges with incorporating SEL supports during summer programing (as opposed to school year programming):

1. **The short length of summer sessions complicates the ability to understand and assess student need and provide targeted SEL support:** "It's just a short period of time. We do feel like during summer we have a really good culture, but it's very short.… There are a bunch of other factors and it just feels like it's too short a time to really have the impact that we would hope to have.… We do feel like we're having an impact, but it's limited."

2. **The extended day in the summer can lead to more behavioral challenges, as participants are together for longer periods than in school year programming:** "Just having [participants] here, instead of three hours a day [during the school year], for eight or nine, there's a bunch of issues that come up."

3. **Summer staff do not always have sufficient training to appropriately support the social and emotional needs of participants**: "[There is a lack of] training to deal with kiddos' behavioral and emotional health needs."

Feedback on the SELweb Assessment Tool

The COP provided opportunities for sites to provide feedback on the implementation and utility of the SELweb assessment tool and associated resources. In general, participating sites offered positive feedback about tools provided:

1. **The SELweb assessment was kid-friendly:** "We didn't have one kid complain. Every kid loved it. Nobody sat [complaining], 'Oh, we have to do this.' They all love it."

2. **The data provided by the assessments was helpful for staff both during the summer and can also be used to inform future program planning.** For example, site leaders reported:

- "Having the student profiles [from SELweb data] really helped, and that was an addition to what we normally would have. It helped our staff get focused on [SEL]."

- "It's great to see areas of strength and growth for our students! We will use [the data] to think about how we modify our programs, during the school year and during the summer, to support SEL growth."

- "As an overall view of all of our students, we can see what areas our kids need a focus on. It looks like we have about two categories where a lot of [participants] identified at a "below" rate on the baseline. And I think those are maybe some areas that we might try to target moving forward. I think that's a good starting point for us as far as our plan for moving into the year."

3. **The data and reports allowed sites to target supports and interventions for "under the radar" participants.** For example:

   - "There were a couple of students who were maybe under the radar a little bit in terms of their social-emotional needs. [The individual participant data] showed us that there may be more need than we realized there, and we were able to just pay more attention."

   - "[Summer] is such a short time period and … we [often] don't really get to know their emotional needs until there's an issue. So, this was very helpful because there's a lot of kids [for whom] we're not really tuned into their emotional needs. [The SELweb individual data] was a helpful tool in learning that hey, she doesn't necessarily get in trouble or she doesn't act out, she doesn't cry all the time, but this data shows that there is some need there, and so we were able to address that."

4. **The data provided by the SELweb assessment encouraged new mindsets for staff in addressing issues and behavioral challenges during the program:** "We are way more intentional in how we react to students when we see [problems], like, well, maybe they didn't do it on purpose. We know [more about where students are in terms of SEL] now, so that we're way more intentional in what we say and how we react to the students."

Feedback on the Logistics of the SELweb Pilot and Administration

The COP also provided opportunities for sites to provide feedback on the logistics of administration of the SEL pilot. This feedback offers insight for DCYF to consider for future administrations of SELweb, or other tools.

1. **Sites need earlier notice for the adoption of new tools or measurement systems.** Sites reported that the SELweb launch and orientation occurred too late in the Spring, and thus too close to the start of summer programming. As one leader

commented, “When this arose … we were in that final stretch, and I feel like we had a limited bandwidth…. Summer planning was already well underway.”

2. **Sites need a longer “on ramp” for training staff on how to effectively use a new tool.** If onboarding were aligned with summer hire orientation and training, that would better equip staff to administer the assessment and use its data. According to one site leader, **“**We didn't have the time to really do [SELweb] in a way that people were able to use [the data].” Another commented that “I think we needed more time to prep to use the survey data and build the resources into our programming.”

Analysis of SELweb Data

The PSA team conducted analyses of SEL growth for individual Summer Together participants who completed both the pre- and post-assessment, using de-identified data provided by xSEL Labs. Effect size was calculated by determining the mean change in the scaled score variables for each domain of competency assessed by SELweb. The mean change was then divided by 15 (xSEL Lab’s computed standard deviation of the assessment), to give an effect size estimate in standard deviations. A total of 164 EE participants completed the pre- and post- assessment in five sites, as did a total of 124 LE participants in two sites.

Using Cohen’s effect size index [small (d=0.2), medium (d=0.5), and large (d>0.8)] as a guide, our analyses suggest **a small positive effect of Summer Together programming on the competencies measured by SELweb for Early Elementary participants**. Specifically, there was a small **overall** positive effect for Early Elementary participants, as well as a small effect on Early Elementary Social Perspective Taking (Exhibit 1). No measurable effect was found for Late Elementary participants.

xSEL Labs does not have sufficient data collected at short intervals to benchmark expected growth for a summer session. However, over such a short interval (i.e., six weeks of summer programming), it is assumed there would be very little growth expected in the competency domains measured by SELweb, if any.[3] Indeed, the small growth observed suggests that the Summer Together pilot programs are indeed having a positive effect on the SEL competencies of participants.

PSA did not conduct analyses of subgroups, due to data reliability. Nearly 60 percent of EE participants with pre- and post-assessment data were missing gender and ethnicity data, as were 50 percent of LE data.

[3] C. McKown, email message to authors, September 20 and September 22, 2023.

Exhibit 1: Effect Sizes in Standard Deviations by Domain

Early Elementary	Number of Pre/Post-Assessments	Mean Change	Effect Size in Std. Dev.
Overall Score	162	3.204	**0.21**
Emotion Recognition	164	2.537	0.17
Social Perspective Taking	164	5.402	**0.36**
Social Problem Solving	162	-.377	-0.03
Self-Control	162	1.753	0.12
Late Elementary	**Number of Pre/Post-Assessments**	**Mean Change**	**Effect Size in Std. Dev.**
Overall	122	-.213	-0.01
Understanding Others	124	.871	0.06
Social Problem Solving	123	-.667	-0.04
Self-Control	122	-.615	-0.04
Self-Assessment	122	.065	0.00

Overall, pilot sites reported in COP that these findings reflected what they observe among their participants, including more challenges with SEL competencies among older youth than younger youth. "[The data] definitely seems like it reflects some of the things that we're seeing on the ground with students with the specific work that we'll do with them." For example:

1. **Sites administering the LE Assessment (including to middle school participants) reported that the pre-assessment data highlighted a need for support with this group when compared to younger participants.** "There's just a big difference between our lower elementary and our upper elementary.... We are just trying to unpack why those differences might be happening or be highlighted for our older kids. Is that really that we are doing something different or that they're in a different stage of their life? We all know there's something different with their stage of life, but is that impacting [their scores]?"

2. **However, sites were also challenged to interpret some patterns in their pre- and post-data over the course of the summer.** For example, at the aggregate site level, sites observed both increases in the number of participants who scored "well above average" in SEL competencies and those who scored "well below average" which proved challenging in meaning-making. One site leader commented that "At first glance, we do see some areas where in that short span we saw what we think is improvement. [However], some of it was kind of contradictory. [In some cases,] we saw a growth in average or above average scores and a decline in below average and well below average. But then in some

cases, it was growth at the very top and growth at the very bottom. So that was one interesting thing and it's hard to draw conclusions from that."

Considerations for Future Use and Scaling

Reflecting on our support of the SELweb pilot in Summer Together 2023, the PSA team offers the following reflections for DCYF as it considers future SEL measurement:

1. **The framing of the purpose of the SEL assessment and "the why" needs to resonate with sites.** Any assessment takes time and effort, and SELweb administration required planning and attention of site staff. Site leaders should buy in to the goal and benefit of the assessment to the site—such as access to individualized information about the SEL competencies of students— and understand it well enough to "sell it" to their staff (and participants) and adapt the use of the measurement data to the needs of their site.

2. **The launch of an SEL measurement tool needs to occur earlier, when sites are beginning to plan for the program.** An earlier launch will allow for appropriate training for site-level staff. As seasonal hires come onboard, training materials can also be added as part of their onboarding.

3. **Intentional support and targeted guidance are needed for any sites implementing a new measurement system.** xSEL Labs offered online and written guidance and resources related to the implementation of SELweb, in addition to the orientation webinar led by PSA and xSEL Labs. Nonetheless, sites needed support for managing the logistics of implementation, and reached out to both PSA and xSEL Labs with questions and for support.

4. **Pre-post measurement expectations need to incorporate support and flexibility for sites.** Many participants were enrolled in Summer Together early, and were entered in the SELweb roster ahead of the start of programming. However, many others joined over the first weeks of programming, which created challenges for getting enrolled on the SELweb platform and conducting the pre-assessment.

5. **A key feature for any SEL assessment tool used in San Francisco should be language capabilities that reflect those of participants.** While Spanish translations were utilized and appreciated, pilot sites reported that expanded language options would be helpful, specifically Chinese translations.

6. **The implementation of a pre- and post-assessment tool may be more appropriate during school year programming rather than during summer programming.** Although the pilot yielded some positive findings for EE participants, SELweb was technically validated and benchmarked to measure growth over the course of a school year, and not over a summer. In addition, the logistics of implementing a pre- and post-assessment tool like SELweb during a short six-week summer are challenging given limited time and staff capacity.

7. **Align data collection (and technical assistance) around the implementation of SEL to the competencies measured by an SEL assessment.** SELweb is aligned with the CASEL domains, which are also reflected in the guidance that DCYF provides its programs. However, for this evaluation, PSA did not have access to information about the implementation of SEL programming in pilot sites. Implementation data could be used, for instance, to correlate site-level patterns of growth in SEL with evidence of implementation of specific strategies. Similarly, data about the intensity and intentionality of implementation of SEL programming could provide context to help explain patterns in growth observed—or not observed—across an initiative, or within sites.

Appendix: Additional Details from SELweb Data

Early Elementary (EE) Data

Exhibit A-1: Grade Level of EE Participants with Both Pre- and Post-Assessments (N=164)

Grade	Percent
K	21.95
1st	26.22
2nd	30.49
3rd	21.34

Exhibit A-2: Change Over Time by SEL Domain, Among EE Participants with both Pre-and Post-Assessments

	Percent of Participants Scoring….			
	Above Expectations	Meets Expectations	Below Expectations	Well Below Expectations
Overall Score				
Pre-Assessment (n=162)	4.94	62.96	28.40	3.70
Post-Assessment (n=164)	3.66	72.56	21.95	1.83
Emotion Recognition Score				
Pre-Assessment (n=164)	3.05	82.32	12.20	2.44
Post-Assessment (n=164)	6.10	84.15	7.32	2.44
Social Perspective-Taking Score				
Pre-Assessment (n=164)	1.83	46.34	42.07	9.76
Post-Assessment (n=164)	10.98	57.32	26.22	5.49
Social Problem-Solving Score				
Pre-Assessment (n=162)	8.02	70.37	16.05	5.56
Post-Assessment (n=164)	10.37	64.02	16.46	9.15
Self-Control Score				
Pre-Assessment (n=162)	9.26	58.02	27.16	5.56
Post-Assessment (n=164)	9.76	59.15	26.83	4.27

Exhibit A-3: Effect Sizes for Individual EE Participant Growth from Pre- to Post-Assessments, by Site

	Site A (n=66)	Site B (n=32)	Site C (n=25)	Site D (n=28)
Overall Score	0.14	0.32	0.35	0.37
Emotion Recognition	0.08	0.35	0.44	0.18
Social Perspective Taking	0.26	0.43	0.43	0.50
Social Problem Solving	0.02	-0.20	0.27	-0.07
Self-Control	0.03	0.31	0.02	0.40

De-identified site-level data are reported for sites that had at least 20 participants with pre and post assessment data. Small Cohen's effect sizes are highlighted in yellow. Medium Cohen's effect sizes are highlighted in green.

Late Elementary (LE) Data

Exhibit A-4: Grade Level of LE Participants with Both Pre- and Post-Assessments (N=164)

Grade	Percent
4th	21.77
5th	29.03
6th	20.97
7th	20.16
8th	8.06
Total	100.00

Exhibit A-5: Change Over Time by SEL Domain, Among LE Participants with both Pre- and Post-Assessments

	Percent of Participants Scoring….			
	Above Average	At or About Average	Below Average	Well Below Average
Overall Score				
Pre-Assessment (n=123)	0.00	43.09	46.34	10.57
Post-Assessment (n=122)	1.64	42.62	45.08	10.66
Understanding Others				
Pre-Assessment (n=124)	0.00	40.32	45.16	14.52
Post-Assessment (n=124)	0.81	42.74	41.13	15.32
Social Problem-Solving Score				
Pre-Assessment (n=124)	8.02	70.37	16.05	5.56
Post-Assessment (n=123)	8.13	51.22	31.71	8.94
Self-Control Score				
Pre-Assessment (n=123)	2.44	53.66	35.77	8.13
Post-Assessment (n=122)	2.46	42.62	45.90	9.02
Self-Assessment Score				
Pre-Assessment (n=123)	14.63	69.92	13.82	1.63
Post-Assessment (n=122)	18.03	68.03	13.93	0.00

Exhibit A-6: Effect Sizes for Individual LE Participant Growth from Pre to Post Assessments, by Site

	Site A (n=48)	Site B (n=45)
Overall Score	0.09	-0.03
Understanding Others	0.08	0.07
Social Problem Solving	0.15	-0.08
Self-Control	0.02	-0.07
Social Perspective Taking	0.01	-0.01

De-identified site-level data are reported for sites that had at least 20 participants with pre and post assessment data.

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