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## Optimizing Partnership Impact: Prioritizing High-Quality Social-Emotional Learning In A Sports Enrichment Out-Of-School Time Program

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OPTIMIZING PARTNERSHIP IMPACT:  
PRIORITIZING HIGH-QUALITY SOCIAL-EMOTIONAL LEARNING  
IN A SPORTS ENRICHMENT OUT-OF-SCHOOL TIME PROGRAM

Julie Thompson Goldstein

A DISSERTATION

In the

Isabelle Farrington College of Education and Human Development

Presented to the Faculty of Sacred Heart University

in Partial Fulfillment of the Requirements for the Degree of Doctor of Education

2023

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Julie Thompson Goldstein

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## DEDICATION

To my husband, Paul, for your unconditional love and steadfast support.

To my daughter, Lila, and my son, Justin. I love you both with all my heart.

To my mother, Nancy; my dearly missed father, Jim; and my sister, Jennifer.

To the memory of my grandparents, who instilled in me an unshakeable love of learning and a commitment to health, well-being, and faith in God in the service of family and our global community.

To my entire family and friends who are like my chosen family, especially Sara Wilson.

“Education must enable one to sift and weigh evidence, to discern the true from the false, the real from the unreal and the facts from the fiction.... We must remember that intelligence is not enough. Intelligence plus character- that is the goal of true education.”

Martin Luther King Jr. “The purpose of education.”  
Maroon Tiger. (January-February 1947). Morehouse College.

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## ABSTRACT

OPTIMIZING PARTNERSHIP IMPACT:  
PRIORITIZING HIGH-QUALITY SOCIAL-EMOTIONAL LEARNING  
IN A SPORTS ENRICHMENT OUT-OF-SCHOOL TIME PROGRAM

Julie Thompson Goldstein

David G. Title, Ed.D., Dissertation Chair

Research demonstrates that out-of-school Time (OST) programs featuring physical activity positively impact students' social-emotional learning (SEL) competencies, including self-regulation and collaboration skills. However, financial barriers prevent low-income students access to OST and sports opportunities. Grant-funded OST partnerships seeking to improve student well-being, emotional safety, and connection need ways to measure their value. A systems view indicates that OSTs play an interactive role within a school's complex system. Guided by the Improvement Science Framework, this Dissertation-in-Practice aimed to strengthen the SEL quality of 2-4-1 TOP Self Sports, a physical literacy-informed sports enrichment OST program serving primarily elementary school students. Using an action research methodology and a mixed-methods sequential explanatory design, the study used the Forum for Youth Investment's SEL PQA, a research-validated program evaluation tool measuring the quality of OST's SEL practices and opportunities. The researcher collaborated with the OST, 2-4-1 CARE, to design and implement a job-embedded curriculum-based SEL intervention at two urban-based magnet schools. The researcher analyzed pre- and post-intervention scores and transcripts from semi-structured focus groups with 2-4-1 instructors to determine the extent of the intervention's impact. Post-intervention data indicate high-quality SEL in 2-4-1 TOP Self

improvement in three of the four domains and two of the three focus areas. 2-4-1 instructors indicated the SEL intervention increased their intentionality to promote self-awareness and self-regulation skills. They observed student SEL growth during and beyond the sports enrichment time, suggesting the potential for 2-4-1 TOP Self to improve school climate.

*Keywords:* Elementary School Students, Program Evaluation, Physical Literacy, Out-of-School Time, Social Emotional Learning, Sports Enrichment

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## DEFINITION OF TERMS AND ABBREVIATIONS

**Improvement Science:** Informs the approach for this Dissertation in Practice. Using the Improvement Science framework, the researcher identified a significant problem of practice and worked toward a solution to improve outcomes (Bryk et al., 2015).

**Emotion Coaching:** One of ten scales included in the SEL PQA with four items connected to adult practices promoting self-awareness and self-regulation. Emotion Coaching is one of three scales that reflect the quality of a Supportive Environment. (Forum for Youth Investment, 2021).

**Furthering Learning:** One of ten scales included in the SEL PQA, comprising five items describing staff practices that encourage young people to deepen their learning. Furthering Learning is one of three scales reflecting the quality of an Engaging Environment. (Forum for Youth Investment, 2021).

**Out-of-School Time (OST):** Supervised programs that young people attend when school is not in session. OST programs, also referred to as after-school programs, can take place before and after school, as well as on weekends, during school breaks, and during the summer. They offer a variety of opportunities, including academic tutoring, visual and performing arts, physical activities, and college and career readiness.

**Promoting Responsibility and Leadership:** One of ten scales found in the SEL PQA with five items describing practices and opportunities that help youth develop responsibility and leadership skills. It is one of three scales that combine to create an Interactive Environment. (Forum for Youth Investment, 2021).

**School Climate:** “School conditions that influence student learning.” (National Center on Safe Supportive Learning Environments, 2022). The Safe Supportive Schools Model provides a



framework comprising multiple elements within three principal areas: engagement, safety, and environment.

**Social Emotional Learning Program Quality Assessment (SEL PQA):** “a research-validated observational tool for assessing the adult youth leader practices that support social and emotional learning” (p.1, Forum for Youth Investment, 2021). The SEL PQA uses a three-point Likert scale with specific criteria associated with the quality and frequency of observable practices and opportunities related to 10 theoretically based scales. (Forum for Youth Investment, 2021). For more information, visit [forumfyi.org](http://forumfyi.org).

**TOP Self™:** TOP Self is 2-4-1 CARE’s trademarked, sport-aligned SEL curriculum, which promotes social-emotional competencies, including self-awareness, self-regulation, and collaborative skills. TOP refers to “Thinking on Purpose.” The curriculum includes an emoji graphic with five categories of commonly experienced emotions. The graphic references a component of baseball, homebase, which represents a category of desirable emotions such as calm, contentment, and happiness. For more information, visit [241play.org](http://241play.org) or contact [Steve@241play.org](mailto:Steve@241play.org).

## CHAPTER 1: THE PROBLEM OF PRACTICE

Teachers, afterschool providers, researchers, and policymakers link social-emotional learning (SEL) to student well-being, learning, school climate, college readiness, and essential career skills (Darling-Hammond & DePaoli, 2020; Devaney & Maroney, 2015; Durlak et al., 2010). The Collaborative for Academic and Social-Emotional Learning (CASEL) identifies five core competencies supporting student well-being: self-awareness, self-regulation, social awareness, relationship skills, and responsible decision-making (CASEL, 2020).

Beyond the school day, out-of-school time (OST) programs offer students diverse opportunities, such as academic enrichment and tutoring, leadership skills, arts, and sports. OST programs featuring high-quality and intentional SEL benefit youth emotionally, socially, and academically (Benson, 2020; Durlak & Weissberg, 2007; Jones et al., 2021). Recent studies reveal multiple concerns about inequities and the impact of the COVID-19 pandemic, including learning loss, mental health issues, and access to sports enrichment opportunities (Dorn et al., 2021; Office for Civil Rights, 2021; Richtel, 2023).

Guided by the Improvement Science framework, this study, conducted as a dissertation in practice, sought to improve the quality of adult SEL practices and opportunities in a sports enrichment OST program: 2-4-1 CARE. More specifically, the study sought to determine whether a targeted SEL intervention positively changed the SEL quality of two of 2-4-1 CARE's school-based programs. The researcher assigned pseudonyms to the host district and the two magnet schools. After identifying the problem of practice and its root causes, reviewing the literature, and conducting an environmental scan to identify barriers through the student and adult lenses, the researcher developed a working theory of improvement (Bryk et al., 2015).

Next, the researcher followed a plan, do, study, act (PDSA) improvement cycle to implement an intervention using an action-research mixed methods research design.

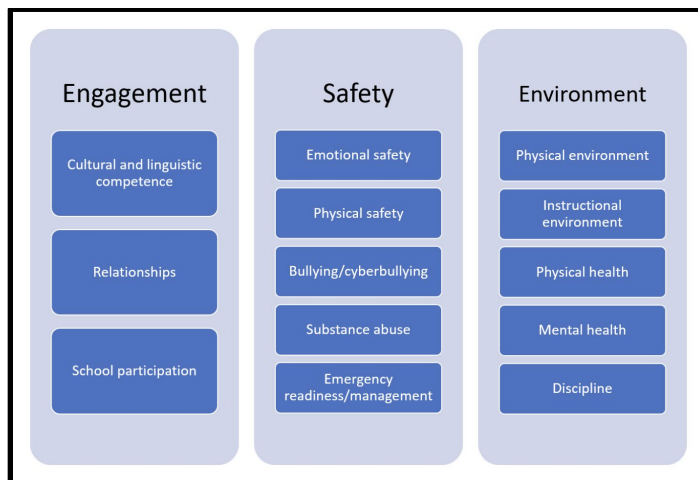
### **Background of the Problem**

School climate refers to the quality of conditions that impact student learning, comprising multiple aspects of safety, engagement, and the environment (National Center on Safe School Learning Environments, 2022). School climate affects students' academic achievement, attendance, self-esteem, health, and well-being (School Climate Council, 2021). While socioeconomic status correlates with academic achievement, a positive school climate decreases the adverse effects of poverty on academic success (Berkowitz et al., 2017; Thapa et al., 2013; Yang et al., 2019).

The U.S. Department of Education Office of Secondary and Elementary Schools promotes the Safe Schools Model created by the National Center on Safe Supportive Learning Environments (NCSSLE) to understand and address the elements that combine to create learning conditions. As indicated in Figure 1, several subcategories reflect the conditions associated with the quality of a school's environment, safety, and engagement.

### **Figure 1**

*The U.S. Department of Education Safe Supportive Schools Model (NCSSLE, 2022)*



Emotional safety is the degree to which students feel free to share their emotions. It is fundamental to personal mental health and positive learning environments (Lester & Cross, 2014; National Center on Safe Supportive Learning Environments [NCSSE], 2023; Shean & Manders, 2020). In emotionally safe schools, students feel respected, valued, and supported academically, personally, and socially (Lester & Cross, 2014; Shean & Mander, 2020; Immordino-Yang et al., 2019). Conversely, the absence of emotional safety is associated with a lack of connectedness, bullying, depression, anxiety, and suicidality (Biglan et al., 2019). Explicit and integrated SEL instruction can develop self-awareness, self-regulation, and relationship and decision-making capacities to increase empathy, communication, problem-solving and reduce misbehavior (Darling-Hammond & DePaoli, 2020).

### ***Post-Pandemic ESSER Funds***

In March 2021, the United States Department of Education received \$122 billion from the American Rescue Plan for the Elementary and Secondary Emergency Relief Fund (ESSER) to address the challenges created by the coronavirus pandemic. Each state collaboratively identified priorities such as building safe and healthy schools, bolstering technology, learning acceleration, enriching summer school and afterschool, connecting family and community, and working on students' and staff's social-emotional and mental health (CT State Department of Education, 2021). Local education agencies submitted plans specific to their needs in these areas. Afterschool programs address various interests, including academic support and enrichment in STEM, the arts, and sports. Beyond the extracurricular focus, outside-the-school-day programs offer students additional socialization and support families as a childcare option for working families (CT State Department of Education, 2022).

Athens Public Schools (APS) is a small urban community with 37 schools, including 18 interdistrict magnet schools. Of the 16,757 APS students, 30% reside in over 65 surrounding towns. The district's demographic enrollment is 57% Hispanic or Latino, 29% Black or African American, 7% White, 5% Asian, and 3% of two or more races. Multilingual learners represent 21% of the student population, 19% receive special education services, and 71% qualify for free or reduced lunch. Based on a recent district profile (Connecticut State Department of Education, 2021), the combined enrollment of Socrates and Plato magnet schools represents 3% of the district's student population (Table 1). Approximately 50% of magnet school students reside in Athens, and 50% live in surrounding towns.

**Table 1***District and School-Site Demographic Information*

	APS (n = 16,774)	Socrates Magnet (n = 343)	Plato Magnet (n = 327)
<b>Race/ Ethnicity</b>			
American Indian or Alaska Native	*	*	*
Asian or Pacific Islander	4.8%	14%	*
Black or African American	31%	35%	49.4%
Hispanic or Latino	42.7%	38.6%	26%
Two or more races	5.6%	*	.7%
White	15.7%	6%	14%
Native Hawaiian or Pacific Islander	*		*
<b>Gender</b>			
Female	50%	50.8%	47.8%
Male	49.4%	49%	52%
<b>Special Populations</b>			
English Language Learners	8.7%	8%	4%
Free or Reduced Lunch Eligible	66%	61.5%	62.3%
Students with Disabilities	20.3%	16%	17.6%

*Note:* \* indicates the percentage is too small to maintain confidentiality.

As indicated in Table 1, Socrates, and Plato magnet schools' enrollment of Black or African American students is more than 10 percentage points higher than the district. In

comparison, the percentage of Hispanic students at Plato Magnet is more than 15 percentage points below that of the district. The proportion of Plato Magnet English Language Learners is half that of the district. The percentage of students qualifying for free or reduced lunches and the percentage of students with disabilities at both schools are comparable to the district.

The two schools included in this study are interdistrict magnet schools. Magnet schools are theme-based public schools that serve as a form of school choice to promote socioeconomic and racial integration and enroll students using a state-regulated lottery system (Magnet Schools of America, 2023). The APS's magnet schools originated in 1996 following a Connecticut State Superior Court ruling on a case referred to as *Sheff v. O'Neill* to address racial isolation. Funded through a combination of state and local sources, the Connecticut State Department of Education regulates the Sheff region's interdistrict magnet schools, whose equity-driven purpose is to provide high-quality education and reduce racial and socioeconomic isolation by maintaining a diverse student population regarding residence, socioeconomic, and racial identity (Connecticut General Statutes, 2022).

During the 2020–21 school year, the APS offered remote and in-person learning options in response to safety concerns caused by the COVID-19 global pandemic. Half of Socrates' and Plato Magnet's students remained remote learners. All students returned to school fully in person for the 2021–22 school year. APS received state ESSER funds to supply all students with one-to-one devices and ensure health-related safety conditions. The APS hired other school social workers to support students' mental health and created several initiatives to address learning loss, such as online tutoring and academic intervention programs during the spring and summer recess. During the summer of 2022, the APS invited all schools to apply for scaled allocations of equity and innovation grant ESSER II funding for the 2022–23 and 2023–24 school years,

aligned to demonstrated needs based on the revised goals and strategies to address the negative impact created by the coronavirus pandemic. Socrates and Plato magnet schools received approval for funds to contract with 2-4-1 CARE to provide before- and after-school enrichment programs in alignment with the district's priority of ensuring student well-being and promoting a positive culture and climate.

***OST Background: 2-4-1 CARE***

2-4-1 CARE is a nonprofit organization that, since its start in 2009, has served over 18,000 children in more than 70 programs in 35 locations across seven states and abroad through sports-based play before and after school, enrichment programs, and summer camps. Their mission to provide all children with the opportunity to grow physically and emotionally through the play-filled power of sports is guided by four core values: culture, ability, relationship, and enjoyment (see Appendix A). The enrichment program model comprises a structured session lasting 30 minutes or 1 hour, beginning with a signature mindfulness activity called Thinking on Purpose, also referred to as TOP Self™, followed by a warm-up fitness activity, sports skill instruction, and organized play. Each hour ends with debriefing and student-led shoutouts. At the time of this study, six elementary magnet schools in two districts host 2-4-1 TOP Self™ club sessions in the morning and afternoons, serving 240 students in grades kindergarten through eighth grade. 2-4-1 CARE prioritizes employing school staff to facilitate programs. Each cohort includes several upper-grade students to serve as mentors as “physical literacy pals” (PLPs). Students enroll in six- to eight-week sessions and focus on three sports: flag football, floor hockey, soccer, team handball, ultimate frisbee, and volleyball. Each week features sports skill facilitation, gameplay, and one TOP Self™ mindfulness strategy aligned with one or more of the five CASEL competencies.



When 2-4-1 CARE aligned its sports sampling curriculum with the physical literacy framework, the organization joined a working group with the Aspen Institute. Physical literacy refers to the ability, confidence, and desire to be physically active for life (Farrey & Isard, 2015). 2-4-1 directors collaborated with researchers to study the effectiveness of their sports skill curriculum (Burland et al., 2018). In 2021, 2-4-1 CARE developed a sports-informed, mindfulness-based SEL curriculum called Thinking on Purpose, aka TOP Self™. Using a baseball home-based graphic, the curriculum addresses the social-emotional competencies of self-awareness and self-regulation (Figure 1).

**Figure 1**

*2-4-1 TOP Self Emoji Graphic*



The TOP Self graphic features one pleasant emotional category called home base and four challenging emotional categories: angry, sad, anxious, and distracted. The visual and short activities aim to promote emotional self-awareness and teach a strategy that will promote a

feeling of calm and contentment, which describes a state of being referred to as “home base.” Each lesson begins with an introduction using the TOP Self™ graphic and an evidence-based mindfulness strategy. The 2-4-1 coach explains the strategy, models it for the students, and then leads them through one round before moving on to a sports-related warm-up activity. OST programs, sports, and mindfulness activities each contribute to well-being and personal and interpersonal SEL competencies (J. et al., 2010; Kahn et al., 2019; Maynard et al., 2017; Opstoel et al., 2020; Taylor et al., 2017). However, during their first year delivering the ESSER-funded program, 2-4-1 directors became concerned about the fidelity of the implementation and its effectiveness. Other than frequent site visits, they lacked a specific process to measure whether their new curriculum effectively contributed to school climate improvement, which was central to the objectives of their partnerships.

### **Statement and Definition of the Problem**

Before the 2019–20 school year, more than 85% of Socrates and Plato students expressed positive perceptions of emotional safety. However, district data illustrate that after all students returned to in-person learning, school climate survey responses indicated a decline (Table 2).

**Table 2***School Climate Survey: Student Responses, Spring 2022*

	APS	Socrates Magnet	Plato Magnet
<i>I feel supported by my school.</i>	67%	74%	82%
<i>My school helps me feel good about who I am.</i>	65%	68%	79%
<i>I feel like I belong at my school.</i>	61%	64%	73%
<i>I feel connected to my school.</i>	58%	58%	73%

The Socrates students closely matched the district concerning connectedness, belonging, self-esteem, and overall experience of the school climate. The percentage of Plato students who responded positively ranged from 11–15 percentage points above the district and Socrates. Student connection and belongingness were consistently low for the district and the schools. To address academic and social concerns resulting from the global pandemic, the APS invited all schools to apply for data-justified ESSER-funded district grants as part of a two-year improvement plan. Socrates and Plato requested funds for extracurricular activities, student clubs, and OST programs to strengthen student connections and promote well-being. The APS grant application process enabled both schools to create contracts with 2-4-1 CARE to implement their sports enrichment programs before and after school during the two years. The partnerships fill a demonstrated need for access to OST programs, enrichment, and extracurricular activities to increase students' sense of support and connection.

Although 2-4-1 CARE increases student access to extracurricular and enrichment activities through sports sampling physical literacy OST programs, they strive to holistically develop students' health and well-being, emotional safety, and sense of belonging. 2-4-1 CARE

attendance numbers and casual observations of happy and fully engaged students reassured district and school leaders. 2-4-1 directors conducted frequent site visits and designed a student and staff survey to gather data about the impact of the program in terms of its impact on students' sense of well-being and connection, physical fitness, sports, and SEL. To create the survey, 2-4-1 CARE directors asked questions about students' overall enjoyment, the extent to which they understood and used the TOP Self strategies, and the student's perception of how 2-4-1 TOP Self aided their self-awareness and self-regulation. While students responded favorably to questions about enjoyment, sports, and a sense of connection, answers to questions about explicit SEL were more varied (Table 3).

**Table 3**

*Student Survey Results Regarding Their Perception of SEL at 2-4-1*

Thinking on Purpose/ TOP Self emojis and breathing help me to be aware of my feelings	Agree: 80% Disagree: 3.9% I do not know 15%
TOP Self gives me a way to feel calm and relaxed.	Most of the time: 70% Some of the time: 27.5% I do not know 2%
Have you used a TOP Self strategy during school or showed a friend or family member?	Yes: 62% No: 38%

While most students surveyed indicated that the TOP Self activities supported self-awareness and self-regulation, just over half of students reported using a TOP Self strategy independently. During their informal site visits, 2-4-1 CARE directors observed evidence consistent with the feedback survey. For example, at both schools, during more than one visit, the leaders did not reference the TOP Self emojis or lead the mindfulness activity. Moreover, while students at both schools approached the directors to share stories of using a TOP Self

strategy during the school day, 2-4-1 coaches did not regularly encourage students to extend their learning beyond the structured session.

As 2-4-1 CARE leaders gained an understanding of the implications of a downward trend in student well-being and connectedness, the urgency of fulfilling their commitment increased. Their initial attempt to gather data at Socrates, Plato, and all school sites sparked 2-4-1's decision to strengthen the social-emotional aspect of their sports enrichment OST program. Despite student engagement and positive perceptions about the benefits of 2-4-1's sports activities, their SEL component fell short.

Compared to the sports component, fewer students understood or recognized the benefits of the TOP Self curriculum. Although the 2-4-1 coaches faithfully implemented skill development and gameplay session plans, they often omitted some or all the TOP Self activities. The challenge of promoting emotional safety and connection through OST partnerships is not unique to 2-4-1 CARE's programs at Socrates and Plato magnet schools. Failure to implement SEL instruction with fidelity risks poorer outcomes related to the targeted competency (Harn et al., 2013; Lawson et al., 2019). OST programs with SEL components demonstrate a need for greater intentionality (Blyth et al., 2017; Devaney & Moroney, 2015; Walker et al., 2014).

To gain a deeper understanding of concerns about the post-pandemic school climate and the effectiveness of ESSER-funded resources, the researcher conducted empathy and consultant interviews with the 2-4-1 CARE directors and principals of Socrates and Plato and principals of two magnet schools in a nearby district partnered with 2-4-1 CARE. After sharing the purpose of the conversation, the researcher asked questions pertaining to perceptions of school climate during the post-pandemic school year, the role of ESSER-funded resources in addressing school

climate, and opinions regarding the impact of 2-4-1 CARE’s TOP Self program. The responses revealed similar perspectives across roles and schools (Table 4).

**Table 4**

*ESSER-funded resources and school climate: Empathy Interview Responses*

Theme	Summary and quotes	Roles
Pressure to demonstrate success via quantitative outcomes.	It is challenging to expect an immediate positive impact of committees, clubs, OST, and academic tutoring.	Two teachers
	Climate survey responses pointed out that we were not offering enrichment or afterschool programs, which are hard to find for elementary schools. Our partnership with 2-4-1 fills that need.	Two principals
Imbalance of demand and available resources.	On a regular occasion, one or two students’ behavior issues demand the full attention of a social worker and administrator for most of a day.	Two principals
	The same teachers run clubs, and student committees, and lead staff teams. “And we’re exhausted.”	Two teachers
“We know 2-4-1 is helping students and our school, but how can we prove it?”	“I love watching our younger students’ faces light up when they see the 2-4-1 PLP’s in the hallway!”	Principal
	“More than once, students have run up to me to share how they used TOP Self to calm them down during class. They were so proud! How do you capture that to share with funders?”	2-4-1 director
	“Every school should have this program. Sports provide the perfect context for trying new things, problem-solving, and teamwork.”	Two teachers
	“How are we going to fund 2-4-1 once the ESSER grant is gone?”	Four principals 2-4-1 directors

Each of the magnet school principals’ first comments centered on the need to improve based on school climate survey data pertaining to support and belonging. They allocated ESSER funds to multiple programs and resources, such as professional learning, OST enrichment

programming, student leadership clubs, field trips, and family events. Two teachers in different schools noted that they were also the leaders of the school climate teams and advisors to the school leadership teams. Both teachers noted that their overall school climate had improved based on an improvement in teacher and student attendance, more field trip opportunities, and before and after school activities.

Despite the improvement, teachers and principals shared that needs relating to a small number of students with dysregulated and disruptive behaviors required a disproportionate amount of time and energy to support. Referring to a colleague, one teacher voiced concerns about how a student's frequent and disruptive outbursts adversely impacted the well-being of their classmates and teacher. A principal noted that ESSER funds allowed them to hire a social worker who contributed to a student's pandemic-related stress management. They worried about their own use of time de-escalating student behavior instead of visiting classrooms.

Teachers, administrators, and 2-4-1 CARE directors believed that the program positively impacts students and contributes to the school community. The teachers shared stories of changes they noticed in students' self-confidence and mood, which they attributed to the TOP Self activities, and the opportunity for kids of all athletic skills to learn sports and play.

School principals believed that focusing on fitness and SEL in the morning program set students up for learning. Two principals noticed fewer office visits from 2-4-1 CARE participants, whose behaviors had frequently led to classroom disruption. One principal was delighted by the connection they observed between older and younger 2-4-1 CARE participants. All four principals commented that time sensitive ESSER funds would run out. They could not foresee how their school budget could sustain the program, although one principal wondered

whether 2-4-1 TOP Self met Title I criteria. Schools monitored implementation through 2-4-1 attendance records and used no additional ways to gauge substantive effectiveness.

### **Purpose and Significance of the Study**

This study uses the Improvement Science framework to determine the impact of an intervention addressing the 2-4-1 CARE's SEL curriculum implementation and the quality of practices in their programs at Plato and Socrates magnet schools. Although 2-4-1 CARE has run summer programs for over 10 years, it is in the initial stage of providing OST programs. They have structures to monitor attendance and implementation. The 2-4-1 directors attempted to strengthen SEL during visits to the programs at all host schools. They reminded coaches to post the emoji graphic and refer to it during TOP Self lessons.

These attempts resulted in mixed levels of success. One program coach created a mural-sized graphic on the gymnasium wall, while another posted the graphic in a low-traffic classroom area. Although this study took place at two host sites, the programs at all host sites demonstrated similar issues. This study will serve as the first foray into continuous improvement to address SEL in 2-4-1 CARE's sports enrichment program.

The Improvement Science framework aligns with the APS district's system- and school-level continuous improvement approaches. The APS district closely monitors implementation and outcome measures relating to academic growth, engagement, and school climate. APS monitors partner programs through reports that include attendance and implementation data. The district is interested in gaining insights to inform an accountability structure monitoring partnership impact. The US Department of Education, state departments of education, OST funders, and researchers measure the impact of grant-funded programs using reports, surveys,



interviews, and narratives and budgets listed in school district plans (Afterschool Alliance, 2023; Engage Every Student, 2023).

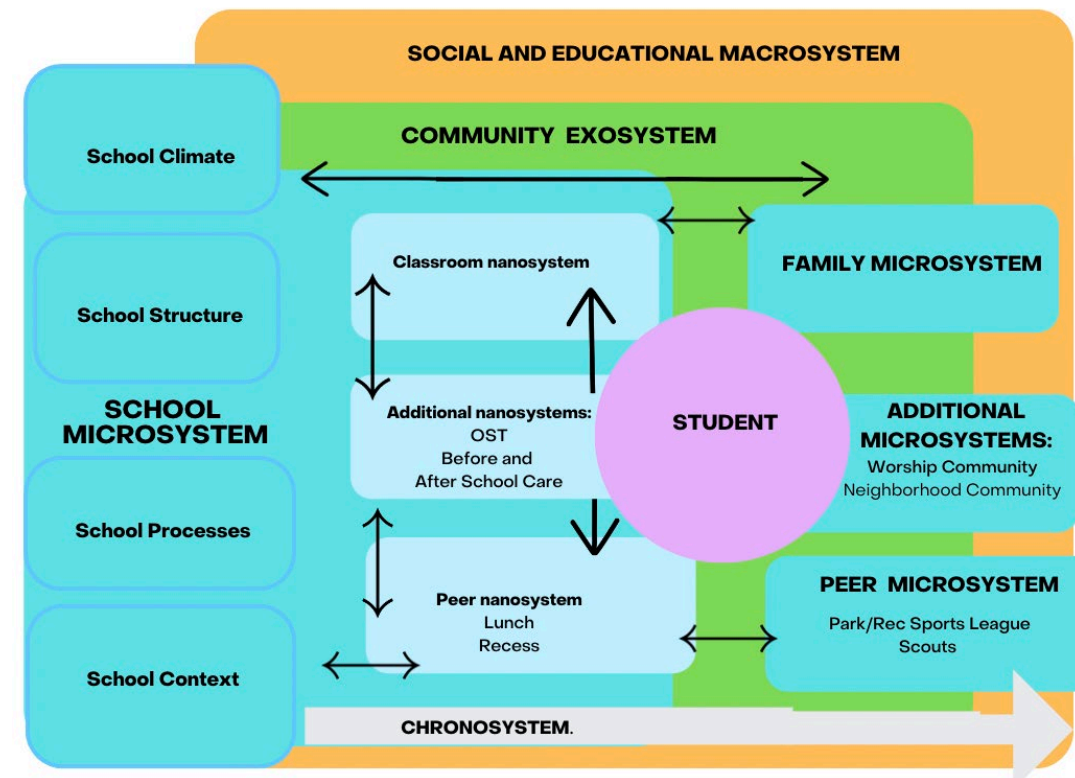
Lastly, 2-4-1 CARE can apply what it learns through the study to support the quality of SEL in all its OST and summer programs. As active participants in physical literacy, sports coaching, and OST, 2-4-1 CARE can share the experiences and insights they gain during this study with colleagues and fellow organizations. 2-4-1 CARE can support the youth sports community in integrating high-quality SEL practices and opportunities to promote youth well-being and connections. Additionally, the study's outcome may contribute to how OST programs collaborate with host schools and leverage their approach as partners supporting school and district goals.

### **The System**

Improvement Science seeks to address a specific problem within a larger context. A systems view shows the interconnectedness of multiple components and how they interact and influence each other (Bryk et al., 2015). By taking a systems view, researchers have the potential to understand root causes and anticipate unintended negative consequences of solutions (Stroh, 2015). School climate, or the conditions of a school community that impact student engagement, is best researched through the Systems View of School Climate (SVSC) to gain insight into the interplay and impact of co-existing structures on students (Marracinni et al., 2020; Rudasill et al., 2018). The SVSC framework draws from ecological systems theory, highlighting one's development through the interplay of multiple contexts, processes, person, context, and time (Bronfenbrenner, 1992). Figure 2 provides an overview of SVSC regarding where OST programs fit into the school system (Rudasill et al., 2018. P. 38).

**Figure 2**

*Systems View of School Climate (Rudasill et al., 2018).*



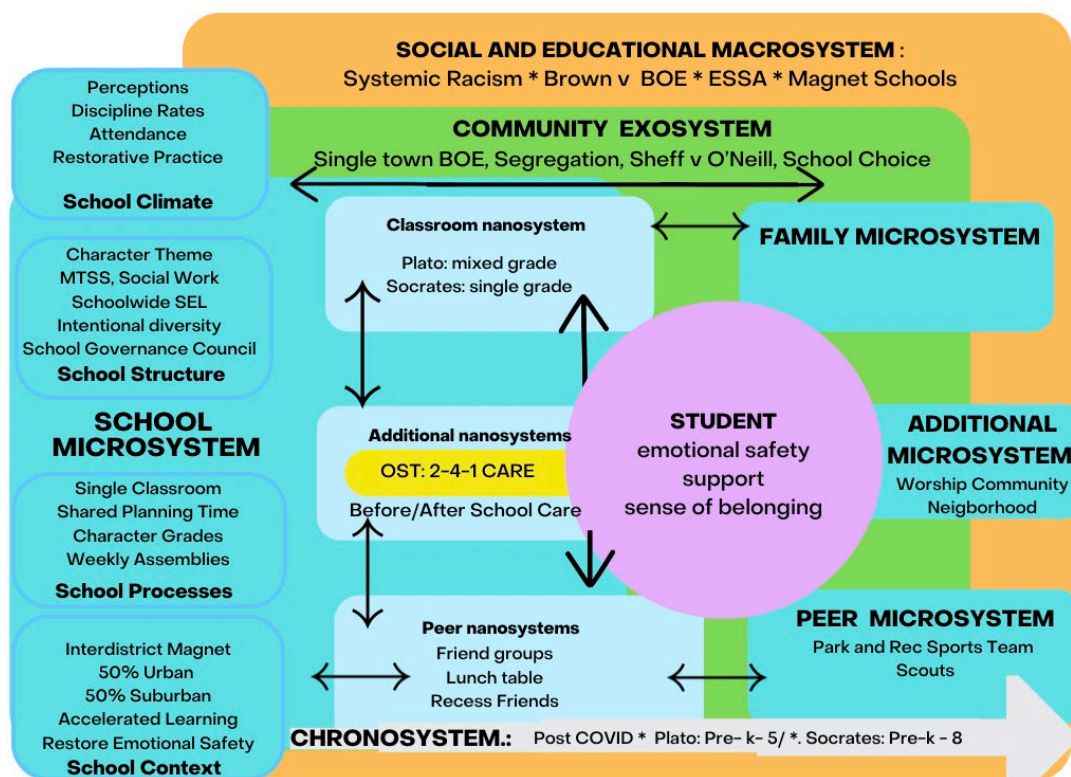
The SVSC framework partializes the complexity of the multiple systems that collectively contribute to a student’s sense of emotional safety and belonging (El Zaatari & Maalouf, 2022; Rudasill et al., 2018). At the center lies the student, shown in a violet circle. The student’s direct experience occurs within microsystems found in teal blue and nanosystems found in light blue. The family and additional microsystems are represented in small rectangles along the right side of the map. The featured microsystem within the framework, the school, is expanded on the left side and includes smaller systems, called nanosystems, in which the student directly engages, such as classrooms and OST programs. Mesosystems, represented by arrows, delineate interactions between microsystems and nanosystems.

Note that microsystems are located within the larger exosystem (shown in green), which serves as the local context of the microsystems. The educational macrosystem (shown in orange) represents the larger context defined by societal norms and legislation. Finally, the chronosystem, shown in a gray arrow at the bottom of the graphic, represents the age and time of the setting. Rudasill et al. (2018) posited that school elements, such as the context, structure, processes, and climate, as defined by perception and quantitative engagement data, collectively create the overarching reality of the school. According to the SVSC framework, a student's emotional safety and sense of connection depends on the quality of the micro and nanosystems and the interaction between them.

To gain a systems-level understanding of the 2-4-1 CARE's role in supporting students' emotional safety and belonging within their host-site schools, this researcher created a systems map using the SVSC framework (Rudasill et al., 2018) (Figure 3).

**Figure 3**

*Systems View of School Climate: 2-4-1 CARE within the Context of Plato and Socrates Magnet (Rudasill et al., 2018).*



As the outer rectangles indicate, Plato's and Socrates's magnet schools' macro and community exosystems provide an equity-focused frame to address societal racial and socioeconomic injustice. For example, the Supreme Court decision for *Brown v. Board of Education*, which determined racial segregation in schools to be unconstitutional, informed the state's decision regarding the *Sheff v. O'Neill* case. The *Brown v. Board of Education* ruling required all states to desegregate schools. The *Sheff v. O'Neill* ruling required the state department of education to create a system of interdistrict magnet schools guided by enrollment and funding regulations.

The school microsystem in the large blue rectangle on the left side of the framework shows that Plato's and Socrates' magnet schools comprise similar elements of climate, structure,

processes, and contexts. For example, they feature the same character education theme, which includes a schoolwide SEL and a character curriculum. Both schools' enrollment reflects the state-regulated lottery to ensure that 50% of students reside in the city where the schools are located and 50% from surrounding towns. Both schools partner with 2-4-1 CARE as an OST, and both partner with an organization that provides before- and afterschool care. The two schools differ in terms of classroom structure and chronosystem. Both schools use a mixed-grade classroom model. Plato's student enrollment comprises pre-K to grade 5 school, while Socrates serves pre-K to grade 8 students.

Applying the SVSC to the problem of practice, aimed at improving emotional safety and student connectedness at Socrates and Plato magnet schools through 2-4-1 CARE's OST physical literacy sports enrichment program, provides a shared perspective about the complex nature of a school as a microsystem, its guiding structures, and how these influence what takes place within the nanosystems, such as the classroom and OST programs, as well as how to measure school climate (Rudasill et al., 2018). In one way, the framework demonstrates that as an OST, 2-4-1 CARE is one of multiple systems that contribute to school climate and that student participation in an OST represents a small portion of the student's world.

The SVSC framework shows that like individual classrooms, the 2-4-1 CARE TOP Self program operates as a nanosystem within the school. In that regard, 2-4-1 CARE's physical literacy enrichment and SEL program promote each student's SEL development, leading to their overall ability to succeed individually and interpersonally. A student who participates in 2-4-1 CARE has the potential to apply their developing collaborative skills as learners in the classroom and as playmates at recess. By improving the quality of 2-4-1 CARE's SEL instruction and practices, the SVSC framework shows that by improving the quality of its SEL component, 2-4-1

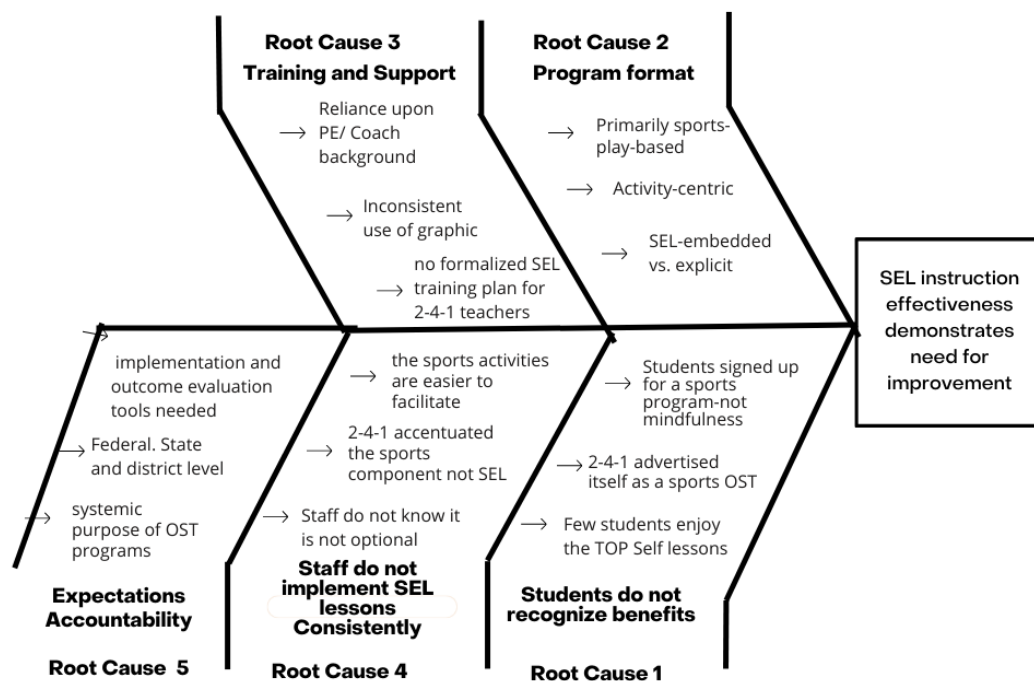
CARE can positively impact the climate at Socrates and Plato Magnet and their other partner schools.

### **Root Cause Analysis**

Improvement Science harnesses quantitative and qualitative data to understand what contributes to the student-centered problem of practice. The feedback survey responses indicate that students' understanding and use of the TOP Self™ activity are weaker than the sports aspect. The researcher met with 2-4-1 CARE Directors to gain insights, visited multiple program sites, and reviewed 2-4-1 TOP Self lessons. The researcher focused on elements related to the TOP Self curriculum. Conducting a causal analysis guided by contextual categories that reflect multiple stakeholder perspectives helps organize the root causes and guides the scholar practitioner's focus to identify potential interventions (Bryk, 2021; Hinnant-Crawford, 2020; Karunakar, 2020). The fishbone diagram presents the contributing factors linked to the effectiveness of the SEL component of 2-4-1 CARE's enrichment program (Figure 4).

**Figure 4**

*Understanding the Problem: Root Cause Analysis Fishbone Diagram*



The critical areas of the problem are linked to instruction and effectiveness. Instruction relies upon curriculum and training, and support and effectiveness depend upon the clarity of expectations and ways to monitor implementation and outcomes.

### ***Root Cause 1: Students do not recognize the benefits of SEL***

According to 2-4-1 CARE's student survey, 100% of third to eighth-grade students surveyed (n = 40) responded positively to enjoying the 2-4-1 program, and 98% responded positively regarding learning new sports and enjoying physical activity. However, when asked about TOP Self, 80% responded that it helped their emotional self-awareness. Although adult educators, researchers, policymakers, and parents agree on how SEL benefits children, research about youth perceptions pertains to adolescents (Meland & Brion-Meisels, 2023). 2-4-1 CARE

advertised its program to students and families as a play-based sports enrichment program and did not emphasize the relevance of the SEL curriculum.

***Root Cause 2: Program Format***

The 2-4-1 CARE program created the 2-4-1 TOP Self™ by adding an explicit SEL component to its physical literacy-informed sports sampling program. The sports-specific sessions included play-based warm-up activities, time to review and introduce sports skills, and time to apply those skills in organized play. The lessons use curricula from Playworks and open-source sports skill lessons such as ultimate frisbee, floor hockey, soccer, and flag football. Sports activities and programs are associated with academic performance, life skills, and social-emotional competencies, including attention, motivation, and executive functioning (Anderson-Butcher, 2019; De Greef et al., 2018; Ennis, 2017; Goh et al., 2022; Roetert & MacDonald, 2015).

TOP Self™ mini lessons last approximately 10 minutes, with an introduction, a demonstration, and an opportunity to practice. The lesson represents just over 15% of the hour-long session. Currently, the lessons reference the TOP™ Self graphic, and there are no visual resources, while the sports sessions require sports equipment and instructional videos. Core programming includes physical education, and recess offers basic play-appropriate settings and basic equipment, such as balls, cones, and nets. Professional sports and local leagues provide shared points of reference. On the other hand, mindfulness activities remain new, and state policies supporting social-emotional and academic development vary widely (Education Trust, 2022).

2-4-1 TOP Self Sports sessions require minimal preparation time and allow facilitators with a background in coaching or teaching to review and implement. During informal announced



and unannounced visits to each school site, 2-4-1 CARE directors and this researcher noted that the activities reflected the plans for the day, and teachers actively engaged with students, monitored, guided, and encouraged student participation, provided instruction verbally and through modeling, and reinforced student learning. During active play, teachers encouraged students, redirected misbehavior, and supported students individually, if needed. The 2-4-1 program directors reflected that the absence of assessment guidelines limits the facilitators' effectiveness. Although SEL programs are new to the OST landscape, researchers and policymakers have identified success criteria and professional learning resources to enhance effectiveness, support improvement, and inform innovation (Blyth, 2018; Mahoney & Weissberg, 2018; Jones et al., 2021; Moroney & Devaney, 2017).

### ***Root Cause 3: Training and Support***

Professional learning, fundamental to education, supports district goals within teaching and learning, school climate, family engagement, and effective operations. High-quality education relies on continuous, content-specific, data-informed, collaborative, strategically aligned, and project-based professional learning, including embedded feedback (Archibald et al., 2011; DeMonte, 2013; Stewart, 2014). The relationship between professional learning and teacher improvement is unclear; however, instructional effectiveness improves when teachers receive specific curriculum-specific training (Jacob & McGovern, 2015; Short & Hirsh, 2020).

The turnkey 2-4-1 Top Self™ lessons allow teachers to implement the lessons with little to no additional assistance. The 2-4-1 founders deliver the equipment, send the lessons, check in with the school site teams through emails, and co-teach or assist during site visits. They identified the need for an orientation plan that outlines the operational protocols, explains the 2-4-1 philosophy, goals, and overall instructional format, provides learning expectations, and

accommodates a rolling start time for new programs. 2-4-1 CARE's current approach includes an overview of the curriculum and frequent visits that include modeling instruction. While OST programs do not traditionally offer professional learning opportunities, best practice recommendations include providing SEL-specific training.

***Root Cause 4: Inconsistent Implementation of TOP Self***

During site visits to their sports enrichment OST programs, 2-4-1 directors observed the consistent implementation of the sports skill activities and game play, inconsistent presence of the TOP Self graphic, implementation of the TOP Self mindfulness activities, and closure of shout-out circles. The 2-4-1 directors explained the TOP Self emoji graphic and shared explanations of the mindfulness activities using a variety of formats via email to the 2-4-1 coaches, using a similar approach to the sports-skill and game-play plans. Some 2-4-1 coaches embraced the SEL component and facilitated activities more easily than others. During empathy interviews at several host sites, the coaches recognized sports as an authentic context for SEL development. Some coaches believed that 2-4-1 CARE's program was primarily a sports program and did not demonstrate full comprehension of the necessity of facilitating TOP Self. Despite the inconsistent implementation of SEL-specific lessons, researchers and SEL experts agree that social-emotional competencies develop within a complex system of contexts and relationships (Jones & Kahn, 2017). Since coaches recognized the natural fit between SEL and sports, although the implementation of the SEL curriculum was inconsistent, recent research has identified evidence-based SEL practices and approaches (Leschitz et al., 2023; Smith et al., 2016).

### ***Root Cause 5: Expectations and Accountability***

Researchers agree that OST enrichment programs increase access to specialized topics that extend learning beyond the classroom, introduce students to new areas of interest, provide additional contexts for students to socialize with peers, and improve overall well-being and social-emotional competencies (Afterschool Alliance, 2022; Durlak et al., 2010; Nagaoka et al., 2015). SEL OST programs enhance self-regulation, self-awareness, and interpersonal skills that build relationships and resolve conflicts most effectively when intentional and explicit and when students regularly attend (Minney, 2021; Elias et al., 2015). However, there is a need for collaborative agreement on expectations and cohesive research to evaluate program quality (Kremer et al., 2015; McCombs et al., 2017). The United States Department of Education, state departments of education, and districts agree on ESSER-funded program priorities and data-informed decision-making to justify the need. Connecticut's state Department of Education created the Accelerate CT Task Force to develop a framework, standards, and data-informed continuous improvement processes to monitor and evaluate the impact of ESSER-funded resources (CT SDE, 2021). The APS ESSER grant process uses attendance and implementation data to track engagement with resources. While useful, the 2-4-1 CARE team wishes to develop a data-informed strategy linked to the district's goals.

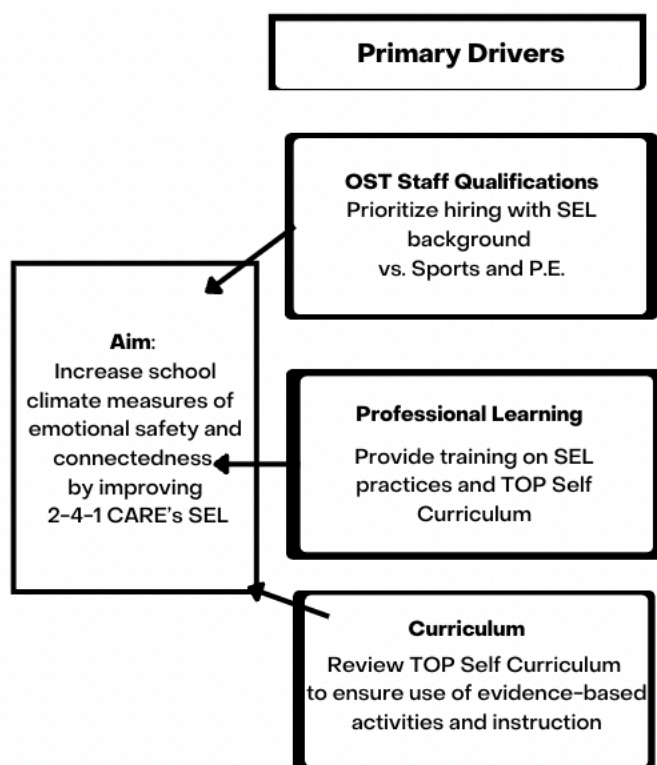
### ***Driver Diagram***

Improvement Science combines site-specific data with research using frameworks such as the system map and fishbone diagram to identify, contextualize, and explain the reasons related to a problem of practice. The driver diagram sets the stage for a working theory of improvement. An aim statement replaces the problem, and drivers identify key systemic levers to

address through specific actions in the form of change ideas (Bryk et al., 2015; Perry et al., 2020). (Figure 5)

### Figure 5

*Partial Driver Diagram: Improve School Climate through 2-4-1 CARE's SEL*



The aim of this dissertation in practice Improvement Science study is to contribute to the increase in the percentage of Socrates and Plato Magnet students responding positively to climate survey questions related to emotional safety and connectedness to school by improving 2-4-1 CARE's SEL in their OST program, which takes place at both schools. The root cause analysis determined that the problems interfering with SEL were related to a lack of clearly defined expectations or program-specific outcomes, a sports-focused curriculum with brief

curriculum-based activities, and informal coach training and support. With a focus on solution finding, the corresponding drivers most likely to influence improvement are prioritizing hiring qualifications to include SEL skills; reviewing and revising SEL curriculum; and providing SEL-specific professional learning.

### **Positionality**

As the researcher, I am also 2-4-1 CARE's chief of programs and a candidate in Sacred Heart University's Social, Emotional, and Academic Learning educational doctoral program. As a classroom teacher, social worker, and principal, I have served and led education communities from birth through grade 12 in rural, suburban, and urban districts. Starting my career as a high school English teacher with Teach for America in Los Angeles, various experiences inspired me to develop skills to support my students' SEL needs. Intending to return to the field of education, I left the classroom to earn a master's degree in clinical social work at Columbia University in New York City and a certificate in psychodynamic psychotherapy at the Institute for Contemporary Psychotherapy.

I worked with adults, children, and families in community-based organizations for several years, advised Teach for America-NY, and ran a small private practice to support young educators and professionals. I returned to the school setting as a birth-to-five director and social worker. I served as the proud and privileged principal of two urban-based interdistrict magnet schools for 10 years, one of which participated in this study. For five years leading up to the global pandemic, I started teaching fitness classes each day at a local gym, where I met the directors of 2-4-1 CARE. I recognize how my previous role as a magnet school principal and my current role with 2-4-1 CARE may influence my perspective and outcomes.

My social work and psychotherapy training helped develop self-awareness; continuous equity training supported my practice of self-reflection to mitigate bias. These skills serve me well in my role as a researcher. I am cognizant of how relationships and experiences might sway my perspective. I am sensitive to the potential for my current relationships with school and OST leaders to create bias during the intervention and data-gathering process. I sought to minimize potential bias and maintain the trust of my colleagues through a combination of self-reflection and checking-in with 2-4-1 CARE and school leaders and staff study participants.

My values and cumulative personal and professional experiences inspired me to pursue an educational doctorate focusing on SEL. As an educator, I seek to systemically ensure that all children have access to an excellent education. Throughout my career, I have used academic and engagement data to guide plans and decisions to ensure growth and achievement. I not only believe but also know that high-quality, equitable, and culturally responsive education that prioritizes the learning and well-being of the whole child promotes lifelong success.

### **Chapter Summary**

Although school leaders, families, and policymakers agree on the importance of OST programs, researchers continue to strengthen ways of measuring their impact (Afterschool Alliance, 2023). Guided by the Improvement Science framework, this dissertation-in-practice sought to leverage the value of a sports enrichment OST program's magnet school partnerships to improve school climate through students' positive perceptions of emotional safety and connection. The researcher gathered information using a variety of approaches to understand the problem of practice. The researcher collected quantitative school-level data, such as school climate survey results and qualitative data, through empathy interviews.

Socrates and Plato magnet school students' sense of emotional safety and connection declined during and the year following the global pandemic. Using ESSER funds, the school principals partnered with 2-4-1 CARE to provide sports enrichment programs featuring SEL. The school leaders, OST leaders, and staff shared positive feelings about the program's impact on students and their schools. However, they also lacked confidence in the quality and value of the SEL component of the program. Other than accountability structures monitoring implementation and attendance, they had no quality measures. Student responses to 2-4-1 CARE's feedback survey indicated strong enjoyment and benefit from sports with an uneven understanding of and benefit from the SEL components.

The researcher learned about the role of OST partnerships through environmental scans and taking a systems-level view. The researcher applied an SCSV to understand the complexity and interconnectedness of the role of 2-4-1 CARE's OST program within its host magnet school sites (Rudasill et al., 2018). Next, the researcher analyzed root causes to identify the primary drivers most likely to impact positive change. The root cause analysis revealed problems related to the clarity of monitoring ESSER-funded resources, inconsistent SEL implementation in the sports enrichment program, the small percentage of students enrolled in OST compared to the school population, and the brief time students spend in OST compared to their school day.

The researcher considered what was within 2-4-1 CARE's locus of control to determine the three drivers with the greatest potential to improve SEL in their sports enrichment program. The following chapter provides research and expert knowledge about the benefits and barriers to physical activity and SEL in OST programs. To design the Improvement Science-informed study, this researcher considered this information and practical circumstances to choose the driver with the greatest potential to impact SEL quality.

## **Chapter 2: Review of Scholarly and Professional Knowledge**

Improvement Science creates a clear understanding of a problem of practice by identifying root causes, clarifying the systemic context of the problem, and organizing themes through existing research, professional reports, and environmental scans or interviews with peers (Pape et al., 2022; Perry et al., 2020). By understanding the problem's context and root causes, this project aims to improve the effectiveness of the OST enrichment program's SEL instruction. For example, Socrates and Plato magnet schools partnered with 2-4-1 CARE to improve the school climate. The researcher gained perspectives during conversations with colleagues and reviewed recent literature to understand the issue and promising practices from the standpoint of students and adults. The collective insights led to the development of a working theory of improvement that guided the selection of an intervention with the highest potential to reach its target.

### **Student Lens: School Climate, Social-Emotional Learning, and Out-of-School Time**

A positive school climate respects the physical, psychological, emotional, and interpersonal needs required for students to succeed (Darling-Hammond & DePaoli, 2020; Thapa et al., 2013; Wang & Degol, 2016a). The American Rescue Plan allocated ESSER funds to address the global pandemic's negative impact and ensure student and staff safety and well-being, including resources related to the school climate (U.S. Department of Education, 2021). The NCSSLE created an indicator framework based on engagement, safety, and the environment. Emotional safety pertains to self-assurance that allows students to take emotional risks, such as asking questions or contributing ideas to class discussions. Conversely, weak student-teacher relationships, punitive disciplinary practices, lack of opportunities for academic



assistance or enrichment, and the absence of SEL instruction create stressful conditions that impede student learning (Darling-Hammond & Cook-Harvey, 2018).

### ***School Climate Requires Student-Centered SEL***

SEL instruction empowers students with school climate-relevant skills such as self-awareness, self-regulation, and interpersonal effectiveness, such as empathy, communication, and conflict resolution (Darling-Hammond & Cook-Harvey, 2018; Greenberg, 2023; Yang et al., 2020). Developing SEL competency supports positive mental health and well-being, two growing concerns ESSER funds seek to address (Relief Programs, 2021; Hamilton et al., 2023; Payton et al., 2000).

### ***OST and SEL***

OST programs provide students with academic tutoring, specialized enrichment in STEM, the arts, and physical fitness, contribute to personal growth and SEL and supervised care (Afterschool Alliance, 2022; Durlak et al., 2011; McCombs et al., 2017; Taylor et al., 2017). Students who attend regularly benefit from nurturing and skills-based OST programs provided by local partners (Mahoney & Weissberg, 2018; Moroney & Devaney, 2017; Tosh et al., 2022; Vandell et al., 2007). The OST program participants demonstrated improved attendance, homework completion, and academic growth (Jones et al., 2017; Sniegowski et al., 2019). Although parent interest has increased, most students nationwide do not have access to OST programs due to availability, cost, and transportation, with disproportionate percentages of students who identify as Latinx or Black lacking access (Afterschool Alliance, 2022; Engage Every Student, n.d.).

OST programs support SEL development broadly based on findings of improving a sense of belonging, self-confidence, and positive social skills, such as cooperation (Newman &

Researcher, n.d.; Pelcher & Rajan, 2016; Smith et al., 2016; Vandell et al., 2007). Students who attend OST programs that provide SEL instruction that includes skill development, attention to skills, and focused specific time on explicit instruction demonstrate better attendance, grades, positive social behaviors, and reduced problem behaviors compared with other OST programs (Durlak et al., 2010; Hurd & Deutsch, 2017).

### ***Physical Activity, Sports, and SEL***

Moderate and vigorous physical activity levels, whether through informal play or organized sports, improve children's cognitive skills, including memory, focus, and executive functioning (Bidzan-Bluma & Lipowska, 2018; Hillman, et al., 2009). Research shows evidence of physical activity's positive impact on student learning and academic achievement (Centers for Disease Control and Prevention, 2014; Farrey & Issard, 2015). Children participating in physical activity in team and club sports demonstrate improved psychological and social health (Eime et al., 2013). Although few studies examine the direct impact, the SEL competencies of fourth and sixth-grade students who participated in an OST physical activity program improved by 7% and 10%, respectively, compared to a control group that showed no SEL growth (Goh et al., 2022).

### **Adult Lens: School Climate, Social-Emotional Learning, and Out-of-School Time**

A school's climate relies heavily on adult actions. Adults must ensure the physical security and cleanliness of the facility and similar environmental components; adults must collaborate, engage with parents and stakeholders, and form relationships with students as individuals and learners; adults form the policies and practices and ensure student safety (Collie et al., 2012; Wang & Degol, 2016). The conditions that create a positive school climate improve students' academic performance and well-being and influence teacher satisfaction and retention (Charlton et al., 2021; Collie et al., 2012; Darling-Hammond & DePaoli, 2020). Educators

measure school climate through discipline records and survey data regarding student, staff, and parent perceptions of critical indicators such as the extent to which one feels supported, connected, or belonging. Strategic school climate improvement plans include the input of multiple stakeholders to create shared understandings, review data, select interventions, and an ongoing process to monitor and adjust (U.S. Department of Education, 2019).

School climate is complex and multisystemic, and practical strategies aimed to create emotional safety are linked to academics, discipline, and student well-being (Wang & Degol, 2016). School climate research and policymakers view SEL as a primary driver of school climate improvement (Darling-Hammond & Cook-Harvey, 2018; Terrell et al., 2020; Yang et al., 2020). School communities attempting to improve school climate or implement SEL face similar challenges, such as competing priorities, absence of cohesion, and lack of adequate resources and professional development (Berg et al., 2017; Cipriano et al., 2023; Gonzalez et al., 2020; Schwartz et al., n.d.). Schools can achieve a collective sense of safety when they provide instruction to help acquire the skills needed to be self-aware, manage their feelings, interact, and build relationships (Darling-Hammond & DePaoli, 2020; Gonzalez et al., 2020; Thapa et al., 2013). In addition to creating a schoolwide initiative, SEL implementation approaches include the delivery of SEL-specific lessons, using general SEL-informed practices and infusing SEL strategies into classroom instruction (Dusenbury et al., 2015).

### ***OST and SEL***

Parents and teachers appreciate OST programs because they provide children with opportunities that are not possible during the regular school day (Afterschool Alliance, 2022). As the demand for OST programs increases, there is a growing need to identify best practices and ways to identify and support high-quality programs (Benavides et al., 2020; Durlak et al., 2010;

Mahoney & Weissberg, 2018; Minney, 2021). High-quality OST programs featuring SEL-focused themes collaborate with and align their approach to their host school and deliver SEL following a sequenced, actionable, focused, and explicit (SAFE) framework (CASEL, 2020; Devaney & Moroney, 2015; Moroney & Devaney, 2017).

SEL-specific OST programs face challenges such as competing priorities, ensuring sufficient training or support on the use of the curriculum, implementing evidence-based practices, and measuring progress (Benavides et al., 2020; Berg et al., 2017; Cipriano et al., 2023; Schwartz et al., 2020; Tosh et al., 2022). Directors of OST programs can prevent these issues by training and supporting their staff to use the SEL curriculum, integrate SEL language and practices used by the host school, and take approaches such as being present with children to build relationships and reinforce SEL-relevant moments during instruction (Devaney & Moroney, 2015; Moroney & Devaney, 2017; Naftzger et al., 2023; White et al., 2022).

### ***Sports, physical activity and SEL***

Researchers of youth sports, SEL, and OST programs agree that coaches, teachers, and OST leaders have the potential to help children develop SEL competencies through sports and physical activity (Goh et al., 2022; Holt et al., 2017; Kahn et al., 2019; Luesse & Luesse, 2021; Opstoel et al., 2020; Zeisner & Smith, 2022). Despite adults' understanding of the benefits of physical activity during play, physical education barriers associated with physical health and overall well-being include a lack of adequate physical activity programming (Center for Disease Control, 2019; Physical Activity Alliance, n.d.) and a lack of access to organized sports due to financial constraints or transportation (Dauenhauer, et al., 2022; Richtel, 2023.; Farrey & Issard, 2015).

The absence of intentionality to incorporate or teach SEL during physical activity, whether in recess, physical education, or OST sports programs, is another example of a barrier (Olive et al., 2021; Opstoel, et al., 2020). Teachers or coaches may not receive training and lack the knowledge or strategies to effectively integrate SEL into physical activities (Ennis, 2017; Olive et al., 2021). Researchers advise coaches wishing to develop SEL competencies through sports to prioritize supportive adult-athlete and peer relationships, provide opportunities for explicit skill building, model prosocial attributes, obtain SEL-specific professional development, and collaborate with fellow stakeholders such as families and schools (Kahn et al., n.d.; Luesse & Luesse, 2021; Zeisner & Smith, 2022).

### ***Practitioner Knowledge: Student and Adult Lens***

OST advocacy organization leaders and OST program directors share perspectives consistent with the research findings. This researcher reviewed *Beyond the Bell*, an OST resource (AIR, 2021), and CASEL's OST Tools (CASEL, 2021) and conducted interviews with a leader at a national OST advocacy organization and research fellows working for Engage Every Student, a U.S. Department of Education initiative whose goal is to create sustainable access to children of all families seeking high-quality afterschool programming, an executive director of a state-level advocacy organization, and an SEL OST program director serving a similar population, located in another state.

**A Misunderstood Resource.** The OST advocacy leader(s) and Engage Every Student fellows acknowledged their broad focus on OST implementation and expressed similar perceptions of the challenges of SEL instruction in OST programs, such as staff training and varying degrees of intentionality in SEL instruction. They remarked that OST providers shared that schools do not understand them and reduce their value to a form of childcare. Some OST

programs' budgets interfere with the ability to hire quality staff or purchase materials. Regarding identifying ways to evaluate SEL effectiveness, two leaders recommended using a student survey or an evidence-based tool to determine students' understanding and use of the SEL strategies.

CASEL's OST Tools and AIR's OST toolkits include planning guidelines, rubrics, and sample letters modeling ways to communicate with families and school communities. Both online toolkits prioritize SEL skills among children in OST settings. They each use a research-informed and evidence-based approach, emphasizing practical activities and strategies to promote emotional safety through relationship building and collaboration.

**Professional Learning Drives Quality.** While CASEL's intended audience is primarily district and school leaders and AIR aims to reach OST leaders, both emphasize the importance for professional development of staff, collaborative school-program-family partnerships, and cohesiveness between host school and OST programs. For example, CASEL suggests that school teams include OST staff on their SEL team, invite OST providers to attend school-based professional development training, and review the OST discipline procedures to ensure alignment of the school (CASEL, 2021). AIR's Beyond the Bell toolkit (2021) urges OST providers to build a positive rapport with the principal, take ownership of their role in communicating with the school, and suggest creating a bulletin board to display activities. CASEL and AIR provide guidance and tools to create specific, measurable, actionable, relevant, time-sensitive goals, monitor progress, and adjust the approach accordingly.

***A Clear Vision in Need of a Cohesive Approach.*** Common themes through the student and adult lenses emerge through scholarly research, practitioner knowledge, and professional toolkits. Adults agree on the importance of school climate, the connection between SEL and school climate, the value of OST time, and that sports and physical activity promote SEL

development. Barriers include access to OST and sports activities, OST staff's lack of SEL understanding and training SEL, and the absence of intentionality in SEL instruction. SEL and OST research identifies the intentionality of skill-based SEL instruction, collaborative partnerships between the OST and school communities through professional learning, and open communication channels with cohesive messaging in the instruction and shared agreements and practices. SEL and OST research-informed toolkits provide checklists and information to support schools or program providers by laying a foundation that includes training OST staff on the fundamentals of SEL (CASEL, 2021) with the school's priorities and learning standards (AIR, 2021).

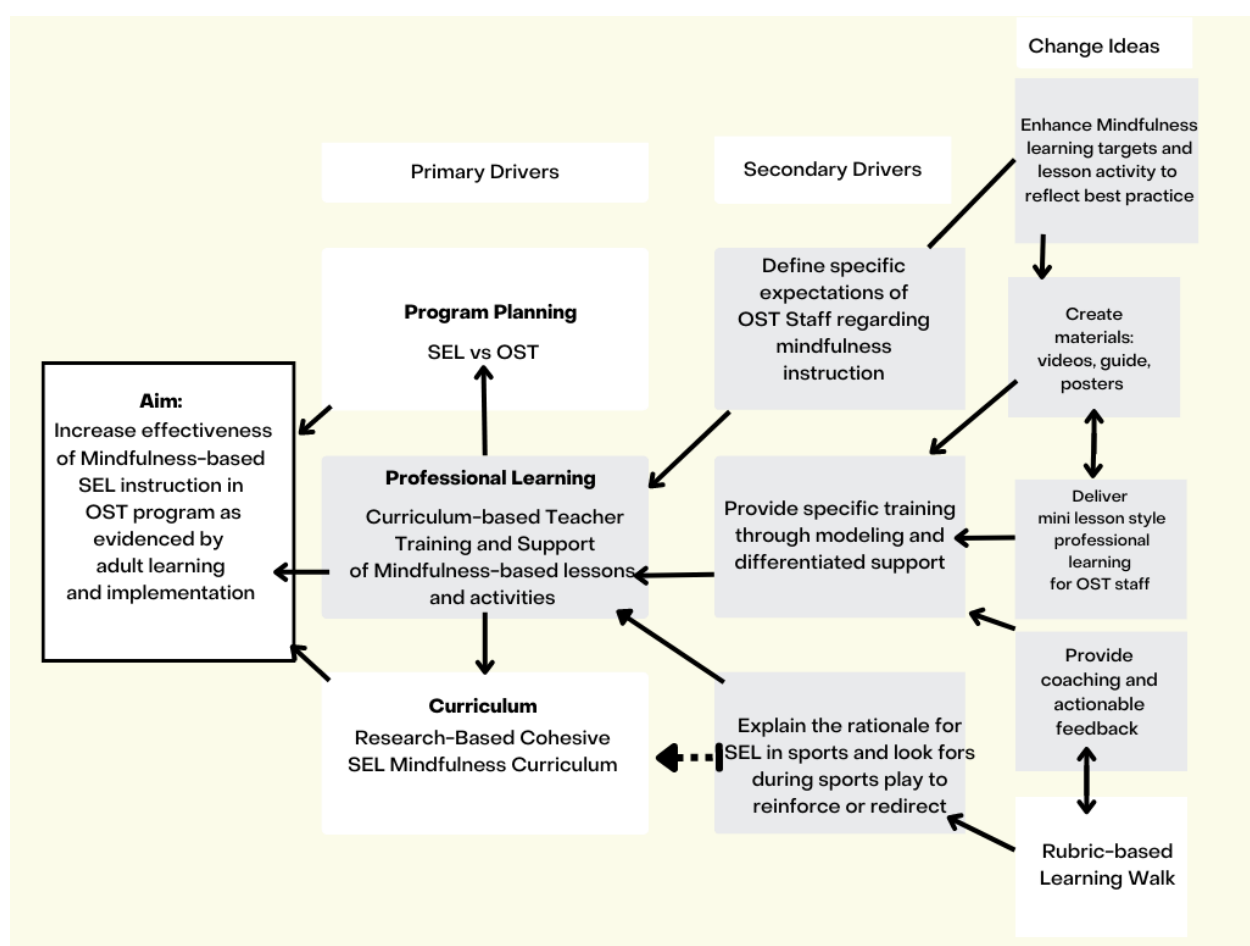
### **Working Theory of Improvement**

“Dissertation in Practice Using Improvement Science” begins with the researcher identifying a problem of practice, understanding the problem's context within a system, identifying root causes, and connecting them with scholarly and professional knowledge. The researcher identified a problem with weak SEL instruction in an OST SEL-sports enrichment program made possible through ESSER funds to improve the school climate based on emotional safety and access to enrichment programs. The root causes included a lack of clarity of expectations and purpose of the OST relevant to the school's needs, inadequate SEL training and support of OST staff, a program format featuring an evidence-based sports curriculum, and newly introduced evidence-based SEL activities. Developing a clear understanding of the problem and its causes led to the creation of a desired outcome articulated in an aim statement. This project aims to improve the effectiveness of SEL instruction, as evidenced by staff understanding and implementation. A review of scholarly and professional knowledge and identifying themes relevant to barriers and recommendations inform the creation of a working

theory of improvement. Figure 5 provides a graphic representation of the working theory of improvement. Change ideas, found on the far right, feed secondary drivers that link to primary drivers. The primary drivers, linked most closely with the aim of improvement, are on the far left of the graphic. The graphic provides an overview of viable solutions and their proximity to the solution.

**Figure 5**

*Driver Diagram*



Addressing key factors, referred to as drivers, can lead to the achievement of an outcome.

Levers specific to the problem of SEL instruction effectiveness include program planning,



professional learning, and curriculum. Change ideas connected to program planning include collaboration between the OST directors and school principals to agree upon the goals of the OST program in alignment with the school's needs through a research-informed process.

AIR's *Beyond the Bell Toolkit* (2021) and CASEL's *Guide to Schoolwide SEL* (2020) provide open access to thorough research-referenced explanations and practical resources. AIR offers training and professional learning opportunities for OST leaders interested in customized assistance, and CASEL provides options for schools to access asynchronous modules or enroll in virtual live training. CASEL's schoolwide SEL implementation requires the school leader to initiate, organize, and lead. The duration of the initial process occurs over the course of a school year and is not realistic for this dissertation-in-practice study. AIR's *Beyond the Bell toolkit* supports OST leaders in the design, implementation, evaluation, and improvement process and is not specific to SEL instruction. While OST leaders may utilize resources, the process is holistic and requires time that extends beyond the scope of this study.

Change ideas specific to the SEL curriculum include replacing the current TOP Self approach with a similar previously researched approach (Schonert-Reichl et al., 2015) or adjusting the focus by shifting the instructional focus and format to include more SEL instruction. Resources for this change include CASEL's program guide (2020), *Navigating Social and Emotional Learning from the Inside Out* (Jones et al., 2021), and the Institute of Education Sciences What Works Clearinghouse. CASEL's online program guides teams in identifying goals, selecting criteria, and comparing programs. Changing the SEL approach is not the best solution to the problem of practice. Initial student survey feedback indicates the potential for 2-4-1 TOP Self to produce effective results, as 80% of respondents indicated that TOP Self helps them be aware of their feelings and 70% responded that TOP Self gives them ways to feel

calm and relaxed instead of worried or angry. Research on SEL program effectiveness needs improvement to understand the details of the students, timing, and setting and what does not work and why (Greenberg, 2023).

While replacing the SEL curriculum with existing research-based lessons is not viable or deemed necessary, the 2-4-1 CARE SEL curriculum, including the TOP Self and embedded skills, has not yet been reviewed or revised to meet research-informed recommendations. For example, SEL and OST researchers and policymakers agree that curricula must align with the SAFE format to be effective (Durlak et al., 2010; Greenberg, 2023; Greenberg et al., 2017; Moroney & Devaney, 2017; Taylor et al., 2017).

The third driver tied to the desired outcome of increasing the effectiveness of SEL instruction in the 2-4-1 TOP Self program is professional learning. Practically speaking, OST staff must understand and be able to implement instructional strategies as designed to achieve their objectives. The 2-4-1 CARE directors reflected on an inconsistent training process across schools that relied on modeling TOP Self instruction during their visits. Other than a conversation about the SEL-specific benefits inherent in sports and physical activity, they provide no formal training on how to reinforce learning or what to look for regarding the SEL skills embedded in sports activities.

The researcher used a data-informed approach specific to SEL implementation to determine the specific professional learning needs. To determine areas of academic learning strengths and needs, educators rely on student-specific data to help guide their approach (Boudette et al., 2020; Mandinach, 2012). The researcher considered the appropriate measurement tool options. While student data such as school climate data and 2-4-1 CARE's feedback survey indicates relative weakness in SEL, the researcher identified professional

learning as the most feasible driver. Professional learning addresses adult instructional practices. The researcher selected the SEL PQA, a measurement tool that assesses adult SEL practices (Forum for Youth Investment, 2021). Informed by SEL theory and best practices, the SEL PQA provides data for continuous improvement cycles.

The researcher worked collaboratively with 2-4-1 CARE directors to enhance TOP Self lesson plans and provided specific examples of how OST staff can connect the TOP Self strategies with the host school's SEL curriculum. The intervention included designing protocols for follow-up coaching visits to observe evidence of implementation and provide support as needed.

Addressing the curriculum driver to ensure evidence of best practice and the professional learning driver by creating modules tied to research-informed recommendations, delivering curriculum-based professional learning, and reinforcing through SEL coaching served as feasible interventions for this dissertation in practice Improvement Science study; both in terms of timing of the implementation and the duration of the cycle. First, they cross-walked six TOP Self lessons, reviewed the sports curriculum for evidence of two embedded SEL skills, and provided strategies for OST staff to support that skill development.

The professional learning materials were linked to the TOP Self lessons, research-informed strategies to promote positive adult–student relationships, and research-informed strategies to link the OST SEL to the host schools' SEL curriculum. The coaching protocols were connected to professional learning objectives. The researcher and the OST directors delivered job-embedded coaching to the OST teachers. Implementation served as evidence of learning. They conducted a six-week coaching cycle.

Prioritizing the curriculum and professional learning drivers with research-informed, data-driven change ideas most directly targeted the aim of the Improvement Science project to improve SEL instruction effectiveness. The outcomes of this study could lead to future cycles of improvement or the development of a pilot study measuring the effectiveness of the SEL curriculum. The outcomes may further inform the need to address the program planning driver to support 2-4-1's partnership expansion plan.

### **Summary**

After identifying the problem and understanding its root causes through a systems view, the researcher explored research and expert perspectives addressing barriers to quality SEL inherent in the OST program. The researcher identified key themes explaining the obstacles and emerging solutions, beginning with the student lens and then the adult lens. The researcher linked the understanding of the problem to the insights generated through a literature review and end-user perspectives to create a working theory of improvement. The researcher conveyed the working theory of improvement through a driver diagram. The driver diagram includes multiple approaches addressing the aim of the Improvement Science dissertation in practice. The researcher selected to leverage the primary driver most likely to impact positive change. The following chapter explains the study's methodology, intervention, and research design.

### **Chapter 3: Methodology**

To support school climate through improved emotional safety, this Improvement Science dissertation in practice aims to assess how professional learning focused upon implicit and explicit SEL instruction impacts the quality of SEL in an OST physical literacy enrichment program that includes an SEL component. Using a quality improvement cycle, this study features a data-driven intervention comprising curriculum-based coaching. This study used an action research methodology and mixed methods explanatory sequential design as a dissertation in practice.

Using the Improvement Science framework, the researcher developed a working theory of improvement by identifying a problem of practice, examining data, conducting end-user interviews, and reviewing pertinent literature (Hinnant-Crawford, 2020). Improvement Science follows a cycle called PDSA (Bryk, 2015). The process of identifying the problem and the working theory of improvement occurs during the plan and study phases of the cycle.

In response to the COVID pandemic, the US ED distributed ESSER funds to help districts provide resources to support student well-being, SEL, and access to OST programs (Afterschool Alliance, 2023). In response to declining student emotional safety and lack of enrichment opportunities, Plato and Socrates magnet schools invested funds to partner with 2-4-1 CARE to provide a before- and afterschool enrichment program featuring sports activities and SEL. 2-4-1's student and staff feedback survey data, combined with the observations of the 2-4-1 directors, indicated a poor quality of the SEL component compared to the sports component.

A root cause analysis revealed three leading probable causes linked to the program format: absence of clear expectations, absence of accountability, and staff training and support. Research and interviews with national, state, and regional leaders in OST confirmed the

importance of school climate, the value of OST, and physical literacy. Success indicators include a high-quality curriculum, program planning, and staff training. This researcher selected change ideas associated with staff training as the primary driver holding the highest potential leverage to mitigate the problem. The researcher created a driver diagram (Table 2) to illustrate the working theory of improvement (Bryk, 2015; Hinnant-Crawford, 2020).

This study's working theory of improvement was that a data-informed intervention consisting of a six-week coaching cycle would positively impact the quality of SEL practices in 2-4-1's OST program. As an initial quality improvement cycle, the research design and intervention implementation occurred within the do phase of the PDSA cycle. After conducting a pre- and post-test, semi-structured focus group interviews clarified and explained the impact of the intervention on the quality of SEL practices.

### **Research Questions**

First, the study used pre- and post-test scores to determine whether and how the quality of SEL practices changed after the targeted intervention. The study used a research-validated tool called the Social Emotional Learning Program Quality Assessment (SEL PQA), before and after the intervention (FYI, 2021). Next, the study sought to explore and understand the impact of the intervention. The study answered the following four questions:

RQ 1: In what ways, if any, did the quality of SEL instructional practices, as measured by the SEL PQA, improve following the SEL intervention?

H1—There is a statistically significant difference in the change in the quality of SEL practices, as measured by the SEL PQA.

H0—There is no statistically significant difference in the quality of SEL practices as measured by the SEL PQA.

RQ 2: To what extent, if any, did the SEL program quality improve in each of the three focus areas: emotion coaching, furthering learning, and promoting responsibility and leadership following the SEL intervention?

H1—There is a statistically significant difference in the change in the three SEL scales as measured by the SEL PQA (emotion coaching, promoting responsibility and leadership, and furthering learning).

H0—There is no statistically significant difference in the change in the SEL scales as measured by the SEL PQA (emotion coaching, promoting responsibility and leadership, and furthering learning).

RQ 3: In what ways, if any, did the SEL intervention impact the quality of SEL in the OST program, as measured by the SEL PQA?

RQ 4: What are the perceived benefits and challenges experienced by 2-4-1 instructors in implementing SEL-related instruction and practices following the intervention?

### **Target Population and Participants**

The OST program directors determined that improving the quality of SEL instruction, as measured by the SEL PQA, would be a worthy program goal for Socrates and Plato schools and two sites at schools not participating in the study. Furthermore, based on a review of the relevant literature, this researcher selected professional learning as the driver with the most significant potential to achieve this goal. To achieve this outcome, the participants in this study included two programs with four 2-4-1 staff, referred to as 2-4-1 instructors at Plato and Socrates magnet schools: two were teachers at Plato and two at Socrates. Three of the teachers were male, and one was female. Two of the teachers identified as White, one as Latino, and one as Asian. All

four teachers had more than 10 years of experience in education. Three had a background in coaching sports or teaching physical education, and all of four had facilitated the 2-4-1 TOP Self during the previous school year.

### **Intervention**

This dissertation-in-practice aimed to improve the quality of SEL practices in their OST physical literacy enrichment program using curriculum-based, job-embedded coaching as the primary driver. As a 2-4-1 CARE chief program officer, this researcher selected a research-validated SEL program quality measurement tool to inform the targeted intervention and measure the intervention's impact, including SEL curriculum enhancement followed by curriculum-based coaching.

### ***Preparing for the intervention: Assess***

The SEL PQA is an itemized observation-based scaled tool that measures the quality of SEL in OST programs within four domains: safe environment, supportive environment, interactive environment, and engaging environment (Forum for Youth Investment [FYI], 2021). The Weikart Center's Pyramid of Program Quality is a framework mirroring Maslow's hierarchy of needs (FYI, 2021), as shown in Figure 6.

### **Figure 6**

*Pyramid of Program Quality (FYI, 2021, p. 5)*





A safe environment focuses on practices that create emotionally safe learning conditions. Supportive environments include approaches focused on helping students understand and express their emotions and instructional strategies designed to promote and encourage learning. An interactive environment reflects practices and opportunities to build collaborative and leadership skills that honor students' identities and foster a sense of inclusivity and belonging. Engaging environmental practices aims to place students in charge of their experiences through choices and opportunities to extend their learning (FYI, 2021, p. 5).

When an organization conducts a self-assessment, the SEL PQA offers a common language to support a team's internal improvement. Organizations seeking data to inform research, or a formal evaluation must use trained, reliable external assessors not affiliated with the program (FYI, 2021). 2-4-1 elected to conduct an internal assessment process to initiate their first continuous improvement cycle.

The SEL PQA Handbook (FYI, 2021) explains the measurement tool and how to use it as part of a continuous improvement cycle: assess, plan, and improve. The SEL PQA aims to identify strengths and areas of improvement. Each domain includes between one and three sections, with 41 items focusing on observable evidence of staff practices or opportunities provided to children during the session. Scores are based on a five-point measurement scale, with 1, 3, and 5 as scores. A score of 1 represents the absence of a practice or the presence of a negative practice, 3 represents some aspect of practice, either informally or toward some vs. all students, and 5 illustrates the presence of the practice or opportunity presented to all students. The scale scores are the unweighted averages of the scores for the items in this section. Domain scores are the unweighted average of the section scores.

The David P. Weikart Center for Youth Program Quality recommends that a team comprising site director OST staff collaboratively conduct program quality under the following conditions: one member of the assessment team observes a session for no less than fifteen minutes, and that team members schedule their observations to ensure that the beginning, middle, and end of a session have been observed. During the observation period, the team members must record notes. Once the team completes the observations, it must convene and agree on one score per item, citing the evidence it collected. The team used the pre-assessment scores to determine the target areas for the intervention.

The David P. Weickart Center for Youth Program Quality provides organizations with the SEL PQA tool to serve their overarching goals, allowing teams to determine whether to omit a scale that is irrelevant to the OST program or their goals. Acting as the chief programming officer, the researcher met with the 2-4-1 CARE directors to share an overview of the measurement tool (Table 5).

**Table 5**

*SEL PQA (With Selected Scales)*

I.	SAFE ENVIRONMENT
1.0	<b>Creating Safe Spaces</b>
1.1	Foster positive emotional climate
1.2	Convey warmth and respect
1.3	Provide support for safe space
1.4	Demonstrate positive youth management style
1.5	Demonstrate mutual accountability
1.6	Show active inclusion

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## II. SUPPORTIVE ENVIRONMENT

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### 2.0 **Emotion Coaching**

- 2.1 Acknowledge emotions
- 2.2 Support young people to have emotions
- 2.3 Discuss constructive handling
- 2.4 Discuss emotion causes

### **Scaffolding Learning**

- 3.1 Break task into steps
- 3.2 Model skills
- 3.3 Encourage young people to improve performance
- 3.4 Monitor challenge level

### **Fostering Growth Mindset**

- 4.1 Guide all young people to self-correct
- 4.2 Use non-evaluative language
- 4.3 Attribute achievement to effort

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## III. INTERACTIVE ENVIRONMENT

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### 5.0 **Fostering Teamwork**

- 5.1 Promote active collaboration
- 5.2 Establish shared goals
- 5.3 Provide group-process opportunities

### 6.0 **Promoting Responsibility and Leadership**

- 6.1 Assign responsibility for tasks
- 6.2 Support carrying out responsibilities independently

6.3 Provide mentoring opportunities

6.4 Provide leadership opportunities

6.5 Provide opportunities to present

7.0 **Cultivating Empathy**

7.1 Structure activity for sharing and listening

7.2 Encourage understanding other's emotions

7.3 Structure activities for showing kindness

7.4 Support valuing of differences

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IV. ENGAGING ENVIRONMENT

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8.0 **Furthering Learning**

8.1 Support connections to previous knowledge

8.2 Link examples to principles

8.3 Encourage extending knowledge

8.4 Encourage logical reasoning

9.0 **Supporting Youth Interests**

9.1 Provide open-ended choice

9.2 Provide multiple opportunities for choice

9.3 Support creativity

10.0 **Supporting Plans and Goals**

10.1 Set up planning opportunities

10.2 Ensure young people record or represent plans

10.3 Facilitate monitoring progress toward goal

10.4 Support problem-solving alternatives

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After considering 2-4-1 CARE's goal to ensure high-quality SEL instruction of the TOP Self™ and their commitment to support the schools' goals of increasing emotional safety and a sense of connectedness and belonging, the 2-4-1 CARE leaders decided to score all the domains and scales.

This researcher led the assessment phase, serving as 2-4-1 CARE's chief program officer. The researcher discussed the potential for bias to positively influence scoring with the 2-4-1 SEL scoring team to mitigate potential bias. The researcher also organized teams of two to conduct the observations simultaneously. Since the scoring process relies on observation-based evidence, a two-person team increases the potential to observe and capture notes on two different simultaneous interactions and decreases the potential for an observer to misinterpret or misrepresent an interaction. Finally, the researcher engaged in personal self-reflection during the assessment phase to maintain a balanced perspective as an active participant in the action research.

In preparation for the observation-based scoring process, the researcher studied the PQA Handbook: SEL (FYI, 2021) and completed the PQA Basics training, a self-paced online course that walks the user through the PQA tool, item-by-item, provides observational note-taking practice, and explains how to participate in the self-assessment process. The researcher also collaborated with Donna Lloyd, a business assistant and engagement specialist for the David P. Weickart Center for Youth Program Quality. Based on this conversation, the researcher designed a graphic organizer to capture observational evidence and notes relevant to the assessed scales.

The researcher trained the 2-4-1 CARE directors and two 2-4-1 program staff using the PQA Crash Course, a PowerPoint created explaining the PQA Basics training (FYI, 2021). In alignment with the SEL PQA handbook and training (FYI, 2021), the researcher instructed the

team to use the single term “student” for any student and “coach” for all 2-4-1 staff and refrain from using identifying language. In addition to the primary purpose of evaluating the practices observed versus the people, the generic use of “student” and “coach” also fully protected the identities of students and staff, allowing this researcher to utilize the notes to identify themes. The interactive training took place via Zoom in September 2023, the week before the first week of the 2-4-1 CARE eight-week session.

During the second week of the 2-4-1 TOP Self program, the PQA team consisted of a 2-4-1 director and a 2-4-1 staff member, and this researcher conducted the PQA SEL assessment for each grade-level 2-4-1 TOP Self session at Socrates and Plato magnet schools (Table 6).

**Table 6**

*Observation Schedule*

Monday	Tuesday	Wednesday	Thursday	Friday
Socrates	Socrates	Plato	Plato	SEL PQA Score Report Review
	Team Scoring Session		Team Scoring Session	

Ideally, both teams had hoped to observe sessions on the same day. The 2-4-1 directors scheduled their observations at Socrates at the beginning of the week for practical reasons. The researcher conducted separate scoring sessions on the same day as the completed observation for each school. During each two-hour meeting, the researcher facilitated a discussion about each item with anecdotal evidence located in the observation notes and collaboratively agreed on a score of 1, 3, or 5 based on the SEL PQA rubric for each item.

### ***Understand and Use the Data to Plan***

After the SEL PQA score sheets were completed for both schools, the researcher entered the scores into Scores Reporter, a software platform created by the FYI, to collect data and calculate score averages. The score reports can be used to identify strengths and areas of growth to inform their improvement action plans. The Weikart Center recommends creating up to three item-level goals focused on increasing scale or item scores through structural improvements or supporting specific individuals using reasonable actions designed to promote success (FYI, 2021, p. 33).

**Preparing and Analyzing the Scores.** The software score reports also include a list of Weikart Center SEL training options, specifically aligned with each scale within a domain. The researcher received access to a report directly after submitting the completed score report for 2-4-1 CARE programs at Socrates and Plato magnet schools. At the end of the observation week, the researcher met with the 2-4-1 directors to review the reports with the intention of making sense of the data to create a plan. This process is the second step of the Weikart Center's continuous quality improvement cycle (FYI, 2021).

In advance of the score report review meeting, the researcher read each report and created a spreadsheet to create a side-by-side view of the items and scales for the Socrates and Plato sites. The researcher provided the reports to the 2-4-1 directors and created a meeting agenda using protocols to support and guide a constructive conversation and identify focus areas for the action plan.

**Using the Data Determine Priorities.** During the meeting, the researcher shared the Systems View of School Climate framework (Rudasill et al., 2018), score report data, and organization and district goals. After sharing their individual observations and questions, the

team collaboratively identified strengths based on scores ranging from 3 and above and weaknesses based on scores under 3, as well as threats and opportunities (Figure 7). The team decided to combine the scores to create a holistic score for the 2-4-1 program overall. Figure x summarizes the combined SEL PQA pre-assessment scores from 2-4-1 programs at Socrates and Plato schools.

### Figure 7

#### *Summary of Strengths Weakness, Opportunity, and Threats*

Strengths	<p><b>Domains:</b></p> <ul style="list-style-type: none"> <li>I. Creating Safe Spaces (3.65)</li> <li>II. Supportive Environment (3.2)</li> <li>III. Interactive Domain (3.36)</li> </ul> <p><b>Scales &gt; or = 3:</b></p> <ul style="list-style-type: none"> <li>1. Creating Safe Spaces 3.65</li> <li>2. Emotion Coaching: 3.25</li> <li>3. Scaffolding Learning: 3.5</li> <li>4. Growth Mindset: 3</li> <li>5. Fostering Teamwork: 3.3</li> <li>7. Cultivating Empathy: 4</li> <li>9. Supporting Youth Interests: 3.6</li> <li>10. Supporting Plans and Goals: 1.25</li> </ul>
Weaknesses	<p><b>Domain:</b></p> <ul style="list-style-type: none"> <li>IV Engaging Environment (2.39)</li> </ul> <p><b>Scales &lt; 3:</b></p> <ul style="list-style-type: none"> <li>8. Furthering Learning: 2.3</li> <li>6. Promoting Responsibility and Leadership: 2.8</li> <li>9. Supporting Plans and Goals: 1.25</li> </ul>
Opportunities	<p>Emotion Coaching- Given 2-4-1 TOP Self's SEL curriculum, there is an opportunity to increase the program quality to reflect that all young people are provided opportunities to identify and constructively manage their emotions.</p>
Threats	<p>Failure to engage all students in developing self-awareness and self-management, interpersonal SEL competencies. 2-4-1 will not reach its full potential as a program.</p>



Based on the combined scores from the pre-assessments of 2-4-1 CARE programs at both Socrates and Plato magnet schools, the SEL PQA scoring team noted that the SEL quality associated with the domains “Creating Safe Spaces,” “Supportive Environment,” and “Interactive Environment” was strong. With a score of 2.39, the team agreed that the domain “Engaging Environment” was an area of weakness. Figure 7 lists each of the scale scores; those 3 and above fit into the category “strength,” and scale scores below 3 fit into the category of “weakness.” During the discussion, the team celebrated solid scores for the three most fundamental domains of the SEL quality pyramid: “Creating Safe Spaces,” “Supportive Environment,” and “Interactive Environment.” The team reviewed the scales within all four domains to identify areas of focus.

***Three Focus Areas.*** The team agreed that although the scale score of 3.25 for “Emotion Coaching” represented adequacy, the score did not reflect the standard of excellence for which 2-4-1 CARE directors strove. The 2-4-1 directors see the SEL quality improvement process as an opportunity to strengthen this area. As they examined the three lowest scoring scales, the 2-4-1 leadership team identified the “Furthering Learning” scale as one with the most potential to add value to their partnership. This scale aligns with connecting authentic sports-related scenarios with general life at home and school and promoting the application of TOP Self™ strategies to situations at home and school. The 2-4-1 directors selected these two focus areas as the most important.

As a third area of focus, the 2-4-1 directors selected the scale “Promoting Responsibility and Leadership.” As the leaders arrived at the three focus areas for the quality improvement cycle, they discussed various approaches most likely to result in improvement based on the post-assessment planned for the final week of 2-4-1’s fall session at Socrates and Plato magnet

schools. Given the tight turnaround required within this study, the researcher drafted an action plan using specific measurable, achievable, relevant, time-bound (SMART) goals based on scale score improvements using intervention ideas (Appendix B).

### ***SMART Goals***

Informed by the online scoring tool recommendations, the researcher created (SMART) goals and recommended ways to address the focus areas (Brown et al., 2016). SMART goals offer a clear understanding of what needs to be accomplished within a specific time. Establishing measurable criteria helps define success criteria and guides plans for reasonable actions with the highest potential (Bjerke & Regner, 2017). SMART goals provide ways to assign accountability, track progress, and evaluate the impact of interventions. For this study, the team set one smart goal for each focus area focused on quality improvement based on the SEL PQA pre- and post-assessment outcomes.

**Emotion Coaching.** Emotion coaching, which is a facet of a supportive environment, refers to practices that help build young people's self-awareness and self-regulation competencies. The four items within this scale include acknowledging emotions, supporting naming emotions, constructive handling of emotions, and identifying causes of emotions. The SMART goal aims to improve the quality of emotion coaching practices, as evidenced by a 20% increase in the combined SEL PQA score. The quality of 2-4-1 practices at Socrates will increase from an average score of 3 to 3.6 or higher. The quality of practices 2-4-1 at Plato will need to maintain or increase the quality of practices based on an average score of 4.3.

**Furthering Learning.** Furthering learning, an element of a high-quality engaging environment, refers to practices that encourage young people to deepen their learning. The five practices comprising this scale include supporting connections to previous knowledge, linking

examples to principles, encouraging extending knowledge, encouraging logical reasoning, and guiding discovery. The SMART goal seeks to increase the quality of SEL, as evidenced by an increase in the combined SEL PQA score by 20 percentage points, from 2.3 to 2.76. The quality of 2-4-1's furthering learning practices at Socrates aims to improve from 2.6 to 3.05, and the quality of 2-4-1 practices at Plato Magnet will increase from 2 to 2.4.

**Promoting Responsibility and Leadership.** Promoting responsibility and leadership, an element of a high-quality interactive environment (FYI, 2021), refers to opportunities and practices that help expand young people's independence and ownership of their programs. The SEL PQA lists two practices and three opportunities: assigning responsibilities for tasks, supporting participants' independence in carrying out their responsibilities, and providing opportunities to mentor, lead, and present. 2-4-1 aims to improve the quality of promoting responsibility and leadership practices and opportunities based on the pre- and post-SEL PQA from 2.8 (pre) to 3.36 (post) in November. The goal for the 2-4-1 program at Socrates Magnet is to demonstrate an increase from 2.2 to 2.64, and the 2-4-1 quality assessment score will increase from 3.4 to 4.08. Each of the specific and measurable time-bound goals includes actions to promote quality improvement.

The SEL PQA Handbook (Weikart Center for Youth Program Quality, 2021) and Scoring Basis Training (Weikart Center for Youth Program Quality, 2020) recommend addressing areas of concern through structural improvements or professional learning followed by coaching. 2-4-1's leadership team collaboratively considered the best approach. In each of the focus areas, the anecdotal evidence did not indicate the staff's choice of words, tone of voice, or body language. Had this been the case in multiple circumstances, the most appropriate intervention would be

professional learning. The 2-4-1 directors' reflections on the anecdotal evidence pointed to the absence of clear expectations.

### ***Planning to Improve Emotion Coaching: Support Young People to Name Emotions***

During their PQA score report reflection regarding the items comprising high-quality emotion coaching, the 2-4-1 directors reviewed the sports and SEL activity plans to explore the features that promoted high-quality emotion coaching practices. For example, although each week's activity plan included a TOP Self mindfulness-based self-regulation strategy, the 2-4-1 directors discovered that the plans did not include explicit prompts asking all students to identify their emotions. They decided to use the data-informed intervention to improve the quality of the TOP Self curriculum, followed by communication and on-site coaching.

### ***Planning to Improve Furthering Learning: Encourage Extending Knowledge***

High-quality practices and opportunities designed to create an engaging environment help deepen the participants' learning through approaches that further their learning, support their interests, and give ways to set goals and make plans (FYI, 2021, p. 98). Practices to extend learning prompt the participants to make connections between classroom and OST program learning, link ideas across disciplines, consider ways to apply newly gained knowledge and skills, and use logical processes to make choices. 2-4-1 leaders reviewed the SEL PQA scores and anecdotal evidence to understand the quality of their program's practices.

The 2-4-1 leadership team noticed evidence of observable furthering learning practices at both the Plato and Socrates sites. In six of the seven anecdotes, furthering learning comments and questions referenced previous learning, sport skills, and experiences specific to the context of 2-4-1 TOP Self activities. One of the anecdotes referenced how a concept specific to TOP Self connects with the school's character education theme. This observation sparked a conversation

about 2-4-1's aim for participating students to apply their learning to situations beyond the session itself.

As they dove deeper into furthering learning as a focus area, the 2-4-1 directors recalled how much it meant to them when students shared that they used a TOP Self mindfulness strategy during the school day. They discussed their longer-term goal for students to organize games and activities during recess. 2-4-1 directors reflected on how they communicated this objective to the 2-4-1 instructors. They identified the item "encouraging students to extend their knowledge" as an opportunity to inform coaches of the need to implement this practice by prompting students to find ways to apply 2-4-1 sports and SEL skills and ideas during the school day.

### ***Planning to Improve Promoting Responsibility and Leadership***

Practices and opportunities that promote responsibility and leadership contribute to a high-quality interactive environment. Assigning tasks and allowing the participants to carry them out with little to no assistance helps develop executive functioning skills. Providing opportunities to mentor, lead, and present ideas offers the participants the chance to build leadership skills relevant to learning and work. 2-4-1 TOP Self includes a role called Physical Literacy Pal or, PLP, specifically for the purpose of promoting responsibility and leadership. 2-4-1 works with school administrators to select several upper-grade candidates who demonstrate emerging skills or an interest in leadership. They conduct individual or group interviews with these candidates to explain the 2-4-1 TOP Self format, and activities describe the role of the PLP. Students who enroll as PLPs actively participate in the activities and assist by pairing up with younger students, leading small groups, and distributing and collecting equipment. PLPs are also encouraged to wear a specific 2-4-1 T-shirt during the session.

The 2-4-1 leadership team prioritized the items specifying opportunities, which they attributed to the PLP role. Sports activities, such as drill practice and game play, inherently offer opportunities to lead and share ideas with a group. During the interview process, 2-4-1's explanation specifies that PLPs need to pair up with and help younger students. As they further discussed the role of the PLP and the selection process, they identified a need to support PLPs' mentorship and leadership. After considering training 2-4-1 instructors, one of the directors decided that they wanted to use the intervention process as a precursor to coach training. The chief operating officer (COO), who onboards staff, elected to train the PLPs at both sites and follow up with support during visits.

### ***SEL Quality Improvement Intervention***

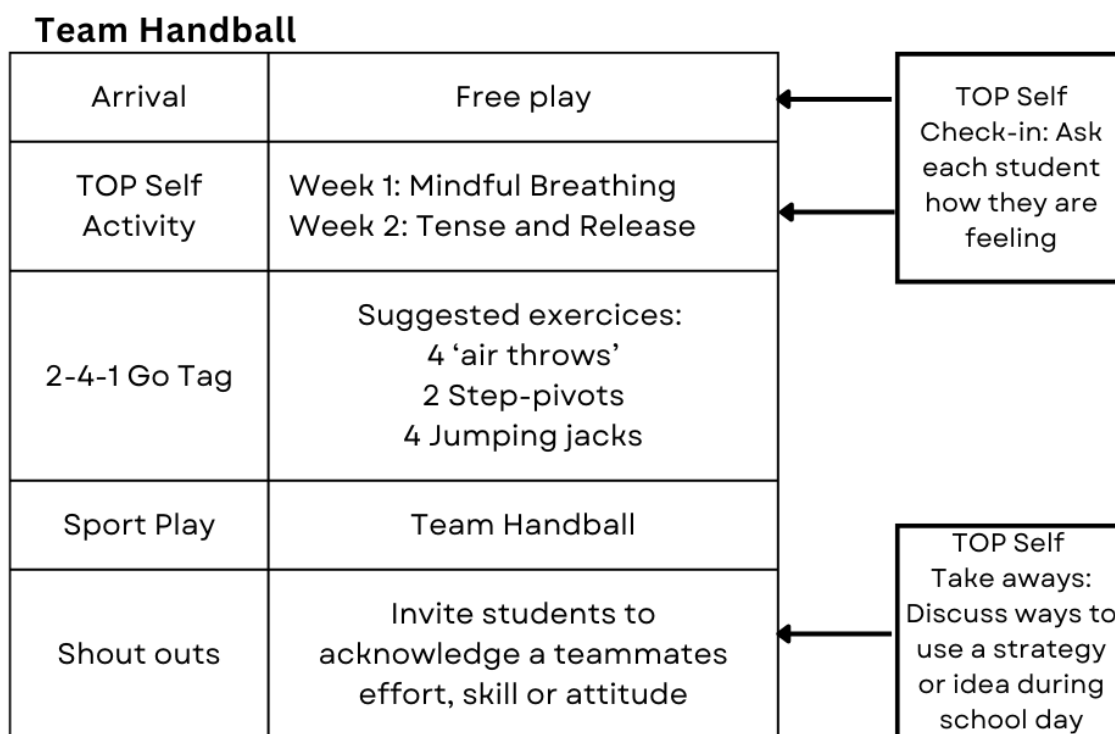
With the aim of improving the quality of SEL practices during the remainder of the fall session, the team created targeted interventions for each of the three focus areas, which were selected through the SEL PQA pre-assessment scoring process. 2-4-1 leaders and researchers brainstormed various approaches for each area. As they collaborated on the selection, they agreed that the intervention needed to fit into or align with the 2-4-1 TOP Self format in a sustainable, cost-effective way that required as little effort as possible for the coaches. Both 2-4-1 directors acknowledged the high regard they held for all 2-4-1 instructors who are employed part-time, and in the case of Plato and Socrates Magnet, they are full-time staff at their respective schools. "We want to improve SEL quality, and we also want our coaches to enjoy their role and not to experience strain that might make this work feel like a chore," said one of the directors. Guided by these values, they created plans for two focus areas that would involve the instructors, called check-ins and takeaways; the 2-4-1 COO led the third focus area, which involved working with the PLPs to strengthen their leadership skills.

### *Emotion Coaching and Furthering Learning: 2-4-1 TOP Self Check-ins and Takeaways*

With the aim of improving emotion coaching and furthering learning practices and opportunities, 2-4-1 identified ways to enhance the existing SEL-specific curriculum, the TOP Self activity, and the shout-outs. Figure 8 shows a template for a 2-4-1 session in which the two interventions occurred.

**Figure 8**

*SEL Intervention: Curriculum Enhancement*



Top Self check-ins refer to the act of asking a student how they are feeling. Arrival is an ideal time to ask students individually how they feel. They allow the 2-4-1 instructor to connect individually with students, express interest in the student's emotions, and provide each student with an invitation to identify and share how they feel. Although 2-4-1 instructors may instinctively assess students' demeanors, explicitly asking each student to share helps them build

self-awareness. As the SEL PQA pre-assessment indicated, 2-4-1 instructors already acknowledge and support students experiencing challenging emotions.

The check-in intervention does not interfere with or contradict this practice. The Top Self takeaway referred to the act of furthering learning by encouraging students to see how to apply what they learn during the sports enrichment program during their school day. Shoutouts, which occur at the close of each session while coaches and students stand in a circle, provide a logical context for this practice. Takeaways do not interfere with a coach's choice to extend learning in other ways during skills and gameplay.

### ***Promoting Leadership and Responsibility: PLP Training***

With the aim of improving the quality of the opportunity intended to promote leadership and responsibility, the 2-4-1 directors created a plan to train and coach the PLPs. They organized a 10-minute training session at the beginning of a 2-4-1 session. The training reviewed the purpose of the PLP role and explained specific leadership approaches, including pairing up with younger students, modeling athletic skills, and encouraging students' effort and progress. The 2-4-1 directors shared a summary of the training with the coaches and followed up during site visits for the duration of the fall session.

### ***Intervention Action Plan***

The 2-4-1 leadership team created an action plan outlining the timeline and actions. The graphic in Figure 9 summarizes the intervention within the context of the 10-week fall session.



Figure 9

## 2-4-1 SEL Intervention Action Plan

Enrollment	C.O.O. and E.D. interview PLP candidates at each school siteCPO facilitates recruitment and enrollment	
–	Opening week: Researcher, C.O.O. and E.D. visit each site, meet with coaches to provide materials, explain the SEL POA, data-informed SEL quality intervention, SEL POA post assessment; request on-going feedback and share plan for a scheduled focus group; inform coaches of dissertation improvement research study.	
Week 2	SEL-POA pre-assessment; scoring meeting; design and plan intervention	
Intervention	<b>Emotion Coaching/ Furthering Learning Check-ins and Takeaways Person responsible: Researcher/ CPO</b>	<b>Promoting Responsibility and Leadership PLP enhancement Persons responsible: C.O.O. and Exec. Director</b>
Week 3	Researcher meets with coaches to explain summary of SEL POA scoring process, shares the plan for the TOP self check-ins and takeaways, clarifies, answers questions, and makes self available	C.O.O. and E.D meet with PLPs as a group. Review the role of the PLP, and explain specific leadership approaches
Week 4	Researcher emails coaches explaining Check-ins and Takeaways in writing and in a four minute video presentation. Researcher visits Socrates and Plato Schools; provides targeted coaching through discussion and modeling	C.O.O. visit non-participant sites to provide follow-up coaching and encouragement to PLPs
Week 5	Researcher emails all sites with upcoming Playbook Pages and visit dates Researcher visit Plato and Socrates' non-participant sites. Delivers laminated TOP Self Emoji graphic as a supportive material for check-in provide targeted coaching through discussion and modeling	C.O.O. visit Socrates and Plato sites to provide follow up coaching and encouragement to PLP's
Week 6	Researcher and C.O.O. visit non-study sites and drop-off sports materials to all sites Researcher emails all sites Playbook page for final planned sports, and shares visit plans	
Week 7	C.O.O. visits non-study participant sites; researcher visits Plato and Socrates sites; Both provide targeted coaching through discussion and modelingResearcher sends 2-4-1 Newsletter to all participants, coaches and school admin highlighting TOP Self and sports and celebrating coachesResearcher emails PLP families celebrating their leadership highlighting mentoring and modeling	
Week 8	C.O.O. emails coaches to inform them of SEL POA post assessment and focus group as part of studyResearcher visit Socrates and non-study participant site to drop off laminated takeaway menus; check in on TOP Self Check ins; meets with PLPs to celebrate their leadership and review specific approaches	
Week 9	Researcher visits Plato and non-study participant site to drop off laminated takeaway menus; check in on TOP Self Check ins; meets with PLPs to celebrate their leadership and review specific approachesResearcher and COO visit each site to collect student feedback regarding sports, SEL, and connection	
Week 10	SEL-POA post assessment and scoring sessionEnd of session celebration and certificates of completion for Fall Session; PLP recognition ceremony	
Week 11	Feedback session for Plato and Socrates and non-study participant Family stakeholder survey	

Introduce  
&  
Put in Place

Support and  
&  
adjust

The SEL quality improvement intervention took place during weeks 3 through 9 of 2-4-1's 10-week fall session at a total of four sites. During the initial three weeks (weeks 3–5 of the program), the researcher and 2-4-1 directors divided the tasks. The researcher initiated the emotion coaching and furthering learning interventions, and the directors led the promotion of responsibility and leadership intervention. Midway through the intervention period, the 2-4-1

leadership team met to reflect on their experience of the initial phase to explore positive aspects and concerns to inform their approach.

The leadership team noticed that onsite visits provided them with the ability to read the room and use their professional judgment in the manner of communication. The team did their best to balance the intention of improving the quality of SEL with the commitment to minimize strain on the 2-4-1 coaches and honor their autonomy. The 2-4-1 leaders elected not to visit Socrates or Plato in week 6. During week 7, the COO and researcher visited the 2-4-1 TOP Self program at the Plato and Socrates sites together. During weeks 8 and 9, the researcher visited Socrates and Plato to observe and provide coaching as needed.

### ***Post-Assessment Process***

During the final week of the fall session, the same SEL PQA team members followed an observation schedule covering the beginning, middle, and end of both grade-specific sessions of the Plato and Socrates schools. At the end of that week, the researcher facilitated a SEL PQA scoring meeting. The researcher followed a scoring format identical to the pretest scoring meeting. Referring to their observation notes, the team discussed each item within a scale to create anecdotal evidence. Based on the scale's rubric, the team agreed on a 1, 3, or 5 score for each item. If the team lacked observation notes corresponding to an item that was irrelevant to the lesson, the item was scored using an "X." The purpose of the scores collected in the second and ninth weeks of the fall session served as the quantitative phase of the mixed methods explanatory sequential design.

### **Research Methodology**

This study utilized a practical action research methodology guided by the Improvement Science framework. Practical action research addresses a contextual issue using data-informed

systematic and reflective procedures and is conducted by practitioners to solve a contextual issue by improving practices (Clark & Creswell, 2014). Since the contextual issue relates to engaging in continuous quality improvement, it is also a form of program evaluation action research (Martella et al., 2013). Action research begins by collaboratively identifying a problem through a diverse group of stakeholders (Martella et al., 2013). The Improvement Science approach aligns with practical action research because it employs a data-informed continuous improvement model. While the action research process seeks to improve organizational practices, the researcher's practices also improve. Because action research addresses a specific problem, it is small-scale and considered qualitative in nature (Martella et al., 2013; Plano-Clark & Creswell, 2015).

In the initial phase of this dissertation in an Improvement Science study, the researcher collected and analyzed survey data and the 2-4-1 directors' observations to identify the problem, collaborated with a variety of stakeholders to conduct a root cause analysis through conversations with directors, school administrators, and 2-4-1 staff and completed a review of research literature and interviews with experts to develop a working theory of improvement. The working theory of improvement informed the intervention, also known as a plan of action, intended to improve the quality of SEL in the 2-4-1 TOP Self OST program. Also consistent with action research, the study took place in a small-scale setting, comprising 2-4-1 TOP Self OST programs in two schools.

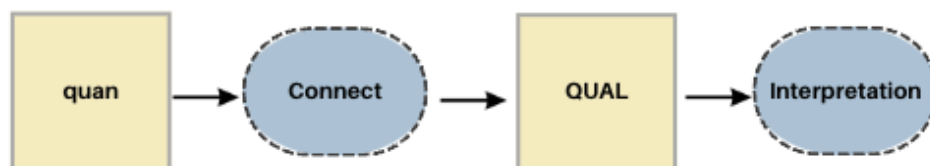
### **Research Design**

This study utilized a mixed methods sequential explanatory design. The researcher collected and analyzed the quantitative data in one phase. During the second phase, the researcher collected qualitative data to explain the quantitative outcomes (Martella et al., 2013).

The timing of the approach began with collecting and analyzing quantitative data, followed by collecting and analyzing qualitative data (Creswell & Plano-Clark, 2018). In addition, due to the small number of school sites and the nature of the observation-based scale score quality assessment, changes in the quantitative data were not likely to provide statistically significant results (Plano-Clark & Creswell, 2015). The qualitative data served the purpose of explaining the outcomes and adding information to aid in understanding the findings. The study used an unequal priority, which means that one component holds greater significance (Plano-Clark & Creswell, 2015). In this study, the quantitative element holds less importance than the qualitative component. Figure 10 illustrates the design.

### Figure 10

*Sequential “quan” → QUAL Mixed Methods Design*



As demonstrated in Figure 10, the quantitative data collection and analysis is the first phase of the mixed methods design because it holds comparatively less significance and is written in the lower case “quan.” The second phase, which involves the collection and analysis of qualitative data connected to the quantitative results, holds more significance, as indicated by “QUAL.”

The design of this study aligns with the research questions (RQs), as shown in Table 7.

**Table 7***Research Questions and Data Measures*

Research question	Data measures
RQ 1: In what ways, if any, did the quality of SEL instructional practices, as measured by the SEL PQA, improve following the SEL intervention?	SEL PQA pre-assessment SEL PQA post-assessment
RQ 2: To what extent, if any, did the SEL program quality improve in each of the three focus areas: emotion coaching, furthering learning, and promoting responsibility and leadership following the SEL intervention?	SEL PQA pre-assessment SEL PQA post assessment
RQ3 In what ways did SEL professional learning and coaching impact the quality of SEL in the OST program, as measured by the SEL PQA?	Focus group semi-structured interviews Researcher notes
RQ4 What are the perceived benefits and challenges experienced by teachers in implementing SEL-related instruction after participating in professional development and coaching?	Focus group semi-structured interviews

RQs 1 and 2 sought to determine evidence of improved practices using a quantitative measure. The quantitative data collection and analysis used a research-validated scale-scored tool to determine whether and to what extent the intervention impacted the quality of SEL practices in 2-4-1 TOP Self OST programs. RQs 3 and 4 sought to understand the findings of RQs 1 and 2. The researcher collected qualitative data obtained through semi-structured interviews with 2-4-1 coaches at Plato and Socrates magnet schools. The qualitative data were analyzed thematically to

explain in what ways the intervention impacted the quality of SEL practices and to learn the perceived benefits and challenges of SEL instruction following the intervention.

In the concluding phase of this explanatory sequential mixed methods design, the researcher interpreted the connected results by summarizing and interpreting the quantitative results and summarizing and interpreting the qualitative results. The researcher then identified to what extent and in what ways the qualitative results shed light on the quantitative results (Creswell & Plano-Clark, 2018). The discussion of the connections between the results aligns with the Improvement Science framework and action research methodology by informing future steps following the intervention and suggesting replicable ways for 2-4-1 CARE to formally improve SEL practices beyond the two schools and across all sites where they provide OST physical literacy programs (Creswell & Plano-Clark, 2018; Hinnant-Crawford, 2020; Martella et al., 2013).

#### ***Data Collection: Quantitative***

The study collected quantitative data using the SELPQA, a valid and reliable scaled tool based upon observed practices designed for internal and external use (Center for Youth Program Quality, 2021). A team of researchers and youth development professionals created the SEL PQA using and adapting existing items from previously created program quality assessments and adding new items that reflect OST SEL best practices (FYI, 2021; Smith et al., 2016). The SEL PQA is organized into four domains and 10 practices (Table 8).

**Table 8***SEL PQA Domains and Scale descriptions*

Domain	Scale	Description
Safe Environment	Provides the foundation for an effective learning environment through psychological safety.	
	Creating Safe Spaces	Staff provide a warm and welcoming atmosphere
Supportive Environment	Provides the tools to enhance student engagement, and problem-solving and encourages taking ownership of learning.	
	Emotion Coaching	Staff prompt young people to be aware of and constructively handle their emotions.
	Scaffolding Learning	Staff scaffold tasks for optimal learning
Interactive Environment	Fostering Growth Mindset	Staff supports youth to have a growth mindset rather than a fixed mindset
	Provides opportunities for young people and adults to work together constructively.	
	Fostering Teamwork	Staff provide opportunities to collaborate and work cooperatively with others
	Promoting Responsibility and Leadership	Staff provide opportunities to grow in responsibility and leadership.
	Cultivating Empathy	Staff support young people in practicing empathy skills.
Engaging Environment	Provides support for young people to lead, plan and implement activities and projects of their choice.	
	Furthering Learning	Staff encourage young people to deepen their learning.
	Supporting Youth Interests	Staff share opportunities for young people to make choices based on their interests.
	Supporting Plans and Goals	Staff provide opportunities to plan, set goals and solve problems.

The reliability and validity analyses affirm each of the 10 scales of the SEL PQA (FYI, 2021). Validity analysis refers to the process of scientifically ensuring that the score interpretation matches its intended use (American Psychological Association, 2014). To determine validity, SEL PQA data were collected across two years from 773 external program

assessments from 412 sites located in 22 networks. Data ratings that represented assessments from multiple sites within a year were aggregated to create one average set of scores. The validity of each scale was statistically determined and reported through the analysis of score distribution patterns and the mean for each item and the scale overall, as summarized in Table 9 (FYI, 2021).

**Table 9**

*SEL Validity Measures and Range of Score Distribution for Scales Utilized in the Study*

Scale	Mean Score	Skewness	Kurtosis	Distribution Range
Creating Safe Spaces	3.78	-0.57	0.32	normal
Emotion Coaching	2.13	0.85	0.07	normal
Scaffolding Learning	3.32	-0.08	-0.63	normal
Fostering Growth Mindset	3.52	-0.26	-0.05	normal
Cultivating Empathy	1.86	0.98	0.35	normal
Furthering Learning	2.39	0.40	-0.37	Normal

While each scale's distribution of scores fell into the normal range, the mean scores for the scales—cultivating empathy, emotion coaching, and furthering learning fell below 3—signal a need for improvement.

Reliability refers to the consistency of scores across repeated use of the measurement tool (American Psychological Association, 2014). The David P. Weikart Center for Youth Program Quality determined reliability (2021) based on Cronbach's alpha, which is a reliability coefficient based on the number and interrelationships of the items and the total test variance (American Psychological Association, 2014).

**Table 10**

*SEL PQA Reliability Coefficients for Scales Utilized in the Study*

SEL PQA Scales utilized	Cronbach Alpha	Level of internal consistency and reliability
Creating Safe Spaces	0.76	good
Emotion Coaching	0.83	very good
Scaffolding Learning	0.66	acceptable



Fostering Growth Mindset	0.41	poor
Cultivating Empathy	0.61	acceptable
Furthering Learning	0.73	good

To prepare to use the SEL PQA with fidelity, the researcher completed the Weikart Center online training, Introduction to the PQA, followed by training specific to scoring the SEL PQA (Center for Youth Investment, 2021) and a follow-up phone meeting with a Weikart Center for Youth Program Quality scoring specialist. The researcher modified a presentation, the SEL PQA Basics Crash Course (David P. Weikart Center for Youth Program Quality, n.d.), and, the week before the first session started, facilitated a one-hour training session for the 2-4-1 program directors and staff who conducted the pre- and post-SEL PQA. The PQA team completed the SEL PQA during the second week of the OST program session and again in the eighth week. According to the recommended process, the researcher, serving as the PQA site director, scheduled 20-minute segments for each of the staff responsible for conducting the assessment to ensure that the beginning, middle, and end of the session were scored.

### ***Quantitative Data Collection***

At the end of the observation week, the researcher facilitated the PQA pre-assessment scoring sessions for Plato and Socrates magnet schools. The scoring session focused on one school at a time. During the session, the researcher reviewed each item on the scale. The team members used their notes to share observations that corresponded to the item. The facilitator summarized the raw notes to create anecdotal evidence. The team collaboratively matched the anecdotal evidence with the most appropriate scale score of 1, 3, or 5. After the scoring sheets for each school were completed, the researcher entered the score from the completed SEL PQA into the Weikart Center Score Reporter online platform. The Score Reporter online software platform reported the average SEL PQA scores. During the ninth week of the fall session, the

SEL PQA team repeated the previously described observation process. At the end of that week, the researcher facilitated the scoring session, as previously described. The researcher entered the item scores into the SEL PQA online platform. The Score Reporter generated a report that compared the two sets of scores. To verify their accuracy, the researcher also calculated the scores using Excel.

### ***Quantitative Data Analysis***

The researcher assigned pseudonyms for the schools to protect their identities. The researcher analyzed the pre-and post-assessment item, scale, and domain scores using a paired sample t-test. The paired sample t-test aims to identify whether there are significant differences between the pre- and post-assessment data and between Plato and Socrates schools' scores. In addition, the researcher reviewed the raw observation notes and anecdotal evidence used to score the pre- and post-assessments. The researcher ensured that all notes referred to 2-4-1 staff as "coach," not by identifying descriptors. The researcher redacted any identifying information about the coach and the students. The researcher reviewed the notes multiple times to glean any relevant themes by scale, domain, and school. The thematic analysis aimed to explore commonalities and differences between the pre- and post-quality assessment observations and between schools. The researcher also sought to examine the presence of any dramatic parallels or discrepancies in the pre- and post-data or between the magnet school groups.

### ***Data Collection: Qualitative***

After using descriptive statistics to analyze the quantitative data, the researcher invited the 2-4-1 instructors at Plato's and Socrates' schools to participate in a semi-structured interview (Appendix C). Each interview lasted 30 minutes and was audio-recorded using a digital recording device. All notes and observations were void of identifiers. Each participant was

assigned a unique identifier code. The researcher then reviewed and coded the transcriptions, notes, and comments, which were reviewed multiple times to identify relevant and meaningful themes (Creswell & Plano-Clark, 2018). Finally, the researcher reviewed a summary of the data gathered during both phases of the study to interpret, understand, and explain the relevance and connections and the impact of the intervention on the quality of SEL in the OST program.

## **Data Analysis**

### ***Quantitative Data Analysis***

Using a one-group pre-test–post-test design, this researcher analyzed quantitative data gathered through the SEL PQA pre- and post-test scores. This procedure measures the same group before and after an intervention and compares the differences between the scores. The purpose was to evaluate the impact of the intervention by calculating the difference between the dependent variables, which were the pre-assessment and post-assessment scores. The data were analyzed using a paired sample t-test, comparing the pre-test and post-test scores. The presence of a statistically significant difference between the dependent variables—the scores—would suggest that the independent variable, the intervention, is responsible for the change (Martella et al., 2013). The researcher examined the quantitative findings to determine the significance between pre- and post-assessment scores and between school scores. The researcher interpreted the quantitative outcomes with qualitative results gathered through a thematic analysis of the observation notes to identify ways in which the datasets aligned with or contradicted each other (Saldaña, 2021). The findings answer RQ 1: In what ways, if any, did the quality of SEL instructional practices, as measured by the SEL PQA, improve following the SEL intervention?

and RQ 2: To what extent, if any, did the SEL program quality improve in each of the three focus areas: emotion coaching, furthering learning, and promoting responsibility and leadership following the SEL intervention?

### ***Qualitative Data Analysis***

The intention of qualitative data analysis in this study is to answer two RQs: RQ 3: In what ways, if any, did the SEL intervention impact the quality of SEL in the OST program, as measured by the SEL PQA? and RQ4: What are the perceived benefits and challenges experienced by 2-4-1 instructors in implementing SEL-related instruction and practices following the intervention? The researcher transcribed the audio recordings of the focus group interviews using Microsoft Word 365. To gain a deep understanding, the researcher conducted an initial coding of the transcript informed by grounded theory (Charmaz, 2014). During the second phase of coding, also known as focused coding, the researcher assigned phrases that summarized the language. This process provided the researcher with the identification of categorical themes (Charmaz, 2014). The researcher used member checking to validate the data by inviting the focus group participants to review the themes and verify the correct interpretation of their responses (Charmaz, 2014). Member checking aligns with the Improvement Science framework since the study aims to improve SEL quality through adult practices. Asking the participants to verify the analysis of their data also builds a sense of trust in the researcher, who also serves as the administrator of their employer.

### **Limitations**

When designing a study, researchers must identify and mitigate limitations inherent to the approach and design pertaining to internal validity, which refers to the accuracy of the results, and external validity, which refers to the ability to reproduce the study in another context

(Martella et al., 2013). The dissertation in practice seeks to prepare the research practitioner to contribute to the field to benefit the community they serve more than to contribute to theory (Carnegie Project on the Education Doctorate, 2022). The researcher focused on threats to internal validity and considered significant limitations to the action research methodology and the quantitative and qualitative designs within the study. The researcher then identified ways in which the shortcomings were mitigated to ensure the potential value of the findings.

#### ***Action Research Approach: Contextual Focus***

The researcher used an action research approach in which the researcher, who is also a practitioner, sought to solve a problem in a data-informed manner (Martella et al., 2013). A considerable threat to the internal validity of this method lies in its contextual focus, which relates to time and setting (Martella et al., 2013). In this case, the study involved a brief intervention period during the first months of the school year. Contextual factors that offset the potential threat to the accuracy of the results include that both Plato and Socrates magnet schools had hosted 2-4-1 CARE in the previous school year with the same 2-4-1 staff. In addition, both Plato and Socrates magnet schools feature a character education theme that includes SEL training for all staff.

#### ***Quantitative Research: Interobserver Agreement***

The primary threat to the internal validity of the quantitative research pertains to the choice of the instrumentation or the measurement tool, which depends on interobserver agreement to select one score for each item that is then calculated to create a score that reflects the strength of the scale (Forum for Youth Investment, 2021). To mitigate this limitation, the researcher referred to the scoring rubric and utilized the SEL PQA handbook to support decision-making during the scoring meeting. While the measurement tool analysis shared in Table 10

demonstrates the validity of all scales, the analysis of the items' interrelationships indicates a variation in reliability among the scales used for the study. The researcher took this into consideration during the data analysis and when examining data pertaining to the scale "Fostering Growth Mindset," which demonstrated poor reliability (Weikart Center for Youth Program Quality, 2021).

### ***Qualitative Research: Social Desirability***

Qualitative research methods are intended to explore and understand a topic of interest using an emerging design approach in which the researcher serves as the measurement device (Martella et al., 2013). The qualitative data collected in focus group interviews are specific to the subjective perspectives of the participants. One potential limitation is that the participants may approach the interview to provide responses that they believe the researcher, or 2-4-1 directors, wishes to hear and shield them from critical or negative opinions. To address this limitation, the researcher framed the purpose of the interview to help improve the SEL quality of the 2-4-1 TOP Self through the improvement of the curriculum and professional learning practices. The researcher also ensured the protection of the identity of the participants during the SEL PQA observations by referring to all 2-4-1 staff members using the same term, coach. Furthermore, the researcher allowed the participants to review the qualitative data findings to verify that they accurately reflected their responses without omitting or adding information.

The study collected and analyzed data to answer the four RQs as part of this Improvement Science dissertation in practice. In the following chapter, the quantitative data comparing the pre-test data with the post-test data will answer the first two RQs. Next, the researcher will share the qualitative data collected and the analysis to answer the other two RQs.

## Chapter 4: Findings

To leverage the value of 2-4-1 CARE's grant-funded school partnerships, this Improvement Science dissertation in practice sought to improve the quality of SEL in the TOP Self sports enrichment OST programs at two magnet school sites. The action research mixed methods explanatory sequential study used the SEL PQA pre-assessment data to identify three focus areas and design a targeted intervention that was implemented for the duration of the fall session. At the end of the session, the SEL PQA post-assessment data helped determine a change in the quality of SEL practices and opportunities. After analyzing the quantitative data from the pre-and post-assessments, the researcher conducted focus group interviews with the OST staff and 2-4-1 directors to explore and understand the quantitative outcomes. The researcher analyzed the qualitative data located in the focus group semi-structured interview transcripts. This chapter presents the results and analyses of the data.

The study sample ( $N = 2$ ) included 2-4-1 CARE sports enrichment OST programs at Socrates Magnet and Plato Magnet, two partner schools in the Athens Public School districts. The OST program, 2-4-1 TOP Self, took place daily each morning before school and serves 37 students at Socrates Magnet and 49 students at Plato Magnet. At Socrates Magnet, students in grades 2 and 3 participated on Monday and Wednesday, and students in grades 4 and 5 participated on Tuesdays and Thursdays. Four middle school students in grades 6–8 served as PLPs on both days. At Plato Magnet, students in grades 3 and 4 participate on Mondays and Wednesdays, and K–2 students participated on Tuesdays and Thursdays. Four students in grade 5 served as PLPs on both days. The 2-4-1 CARE SEL PQA scoring team, consisting of two staff members at each site, conducted observations over two full days. The team used raw data from

their observation notes to score one SEL PQA pre-assessment and one SEL PQA post-assessment for each site.

The researcher conducted separate focus groups at Plato Magnet and Socrates Magnet. Each focus group consisted of the two 2-4-1 instructors who co-facilitated the 2-4-1 TOP Self program and the two 2-4-1 CARE directors. The 2-4-1 CARE coaches were also full-time certified teachers at their respective schools (PMS = 2; SMS = 2). Two teachers had 15+ years of experience, and two teachers had 10–14 years of experience. The 2-4-1 CARE directors have 15 years of experience in their current role, and each also has 20+ years of experience in the field of education.

### **Research Questions**

This action research study used a mixed methods sequential explanatory design to answer questions to determine changes in the quality of SEL, followed by questions exploring the 2-4-1 coaches' experiences to help determine the significance of the intervention in SEL delivery.

Quantitative data from the SEL PQA pre- and post-assessment answer the first two RQs.

Qualitative data from focus groups with the 2-4-1 coaches answer the other two RQs.

### ***Quantitative***

RQ 1: In what ways, if any, did the quality of SEL instructional practices, as measured by the SEL PQA, improve following the SEL intervention?

RQ 2: To what extent, if any, did the SEL program quality improve in each of the three focus areas: emotion coaching, furthering learning, and promoting responsibility and leadership following the SEL intervention?

To answer these questions, the researcher used SEL PQA to provide quantitative data through pre-assessment and post-assessment scores (FYI, 2021). SEL PQA measures the quality



of evidence-based SEL practices and opportunities. After completing the PQA Basics Training, an online program explaining the observation and scoring process, the researcher trained two 2-4-1 directors and a 2-4-1 staff member using the PQA Basics “Take It Back” PowerPoint (FYI, 2021). The researcher facilitated a condensed version of the formal PQA Basics training workshop to prepare team members to conduct an internal assessment.

The “Take in Back” PowerPoint includes explanations of the Program Quality Pyramid, the history of the SEL PQA and the Forum for Youth Investment’s continuous improvement process. The presentation allowed team members to use the SEL PQA items as a springboard for discussion about their program’s strengths and weaknesses. The team participates in simulation exercises to script an observation of a scene. By participating in this exercise, the team learns appropriate ways to objectively describe what they see without adding opinions or subjective descriptions. The exercise allows the team to calibrate. For example, when the participants share their narratives of the same scene, they learn whether they see or describe a situation in similar ways. The presentation prepared the researcher and these three 2-4-1 staff members to serve as the SEL PQA scoring team for the study.

According to the Forum for Youth Investment handbook, one or more members of the team must collectively observe full sessions of one program (FYI, 2021). The notes from these sessions serve as the raw evidence used to assign a score for each item. In an internal assessment, the team uses these notes to score one SEL PQA for the program site. The researcher decided that for the sake of integrity, two members of the SEL PQA scoring team would observe complete sessions together from beginning to end. The presence of two observers increased the chances of capturing simultaneous interactions and minimized the potential for bias.

The team agreed that they would script everything they observed in the program and position themselves inconspicuously in different parts of the gymnasium. When the researcher explained the SEL PQA process to the 2-4-1 instructors, she shared the purpose of the pre- and post-assessment and emphasized that the purpose was not to evaluate them professionally, but to understand the quality of SEL practices and opportunities programmatically.

**Pre-and Post-Assessment.** During the second full week of 2-4-1's fall program, two SEL PQA scoring team members conducted observations together for the full hour of both 2-4-1 TOP Self morning sessions at Plato Magnet School, and the other two SEL PQA team members conducted observations for the full hour of both sessions at Socrates Magnet School. During the observations, they scripted narratives of the sessions on a note catcher designed by the researcher. On the second day of the observation, the researcher conducted scoring sessions for 2-4-1 at Plato Magnet and 2-4-1 at Socrates Magnet. Using handwritten notes that captured what they heard and saw as raw evidence, the researcher recorded anecdotal evidence for each of the 41 items on the assessment. The researcher consulted with the SEL PQA Handbook (Forum for Youth Investment, 2021) for each item, as the team referred to their notes and used a rubric to collaboratively agree on a score of 1, 3, or 5. After entering the scores and anecdotal evidence on a form, the researcher submitted the scores to the SEL PQA online score reporter (FYI, 2021).

The researcher and 2-4-1 directors used the SEL PQA pre-assessment observation process and score reports from the 2-4-1's program at both Socrates and Plato schools to identify high-quality practices and discuss opportunities for improvement. The researcher and 2-4-1 directors agreed on three focus areas and collaboratively designed a targeted intervention aimed at improving the quality of SEL. The 2-4-1 directors and the researcher implemented the SEL intervention consisting of emails, a video presentation, and curriculum-based job-embedded

coaching at Plato and Socrates schools, as well as two sites at APS not included in the study. The intervention occurred from week three through week nine during the 2-4-1 fall session.

During the 10th and final week of the fall session, the SEL PQA scoring team members conducted the post-assessment process. The same two observers returned to the 2-4-1 TOP Self morning program together at the same site as the pre-assessment to observe full sessions on two separate days and recorded handwritten narratives using the same note catcher template used during the pre-assessment. Like the pre-assessment, the researcher facilitated scoring sessions on the second day of the observation. Using their notes, the team followed an identical format to collaboratively agree on the scores for each of the 41 items based on the rubric. The researcher referred to the SEL PQA handbook to facilitate the process. The researcher recorded the scores, supported anecdotal evidence on a form, and entered the scores into the online SEL PQA Score Reporter. The SEL PQA Reporter generated two individual SEL PQA performance reports with pre- and post-intervention scores: one for 2-4-1 TOP Self at Plato Magnet and one for Socrates Magnet.

## **Results**

### ***Research Question 1***

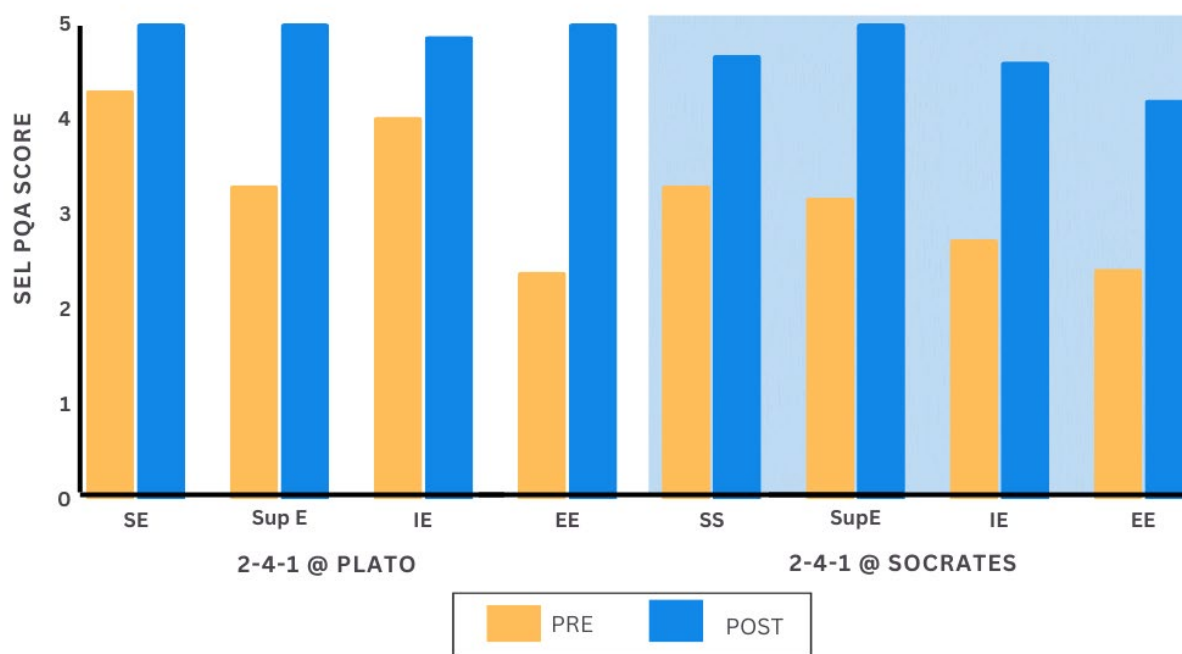
In what ways, if any, did the quality of SEL instructional practices, as measured by the SEL PQA, improve following the SEL intervention?

***Percentage of Growth.*** The researcher examined descriptive statistics to identify the growth in each of the four SEL PQA domains: safe space, supportive environment, interactive environment, and engaging environment. Each domain comprises a set of scales relevant to the domain. The domain score is the average of the scales. Figure 11 illustrates the pre-assessment

scores of the Plato and Socrates schools, followed by the post-assessment scores for each domain.

**Figure 11**

*Pre- and Post-Assessment by Domains 2-4-1 at Plato and Socrates*



*Note:* SE= Safe Environment; Sup E= Supportive Environment; IE= Interactive Environment.  
EE= Engaging Environment.

As Figure 11 illustrates, observations at both 2-4-1 sites demonstrated improvement in all four domains. Regarding the domain “Safe Environment,” the pre-assessment score at Plato was 4.33, and the post-assessment score was 5, indicating 15% growth. At Socrates, the “Safe Environment” pre-assessment score was 3.33, and the post-assessment score was 4.67, indicating 40% growth.

Regarding the domain of “Supportive Environment,” the pre-assessment score at Plato was 3.33, and the post-assessment score was 5, indicating 50% growth. At Socrates, the

“Supportive Environment” pre-assessment score was 3.17, and the post-assessment score was 5, indicating 57% growth. Regarding the domain “Interactive Environment,” the pre-assessment score at Plato was 4.02, and the post-assessment score was 4.87, indicating 21% growth. At Socrates, the “Interactive Environment” pre-assessment score was 2.73, and the post-assessment score was 5, indicating 83% growth. Finally, regarding the domain “Engaging Environment,” the pre-assessment score at Plato was 2.39, and the post-assessment score was 5, indicating 109% growth. At Socrates, growth in the “Engaging Environment” was 178%, the pre-assessment score was 2.42, and the post-assessment score was 4.2.

**Score Interpretation.** SEL PQA scores ranged from 1.0–5.0. Scored as a self-assessment, the team observed multiple offerings and, following a consensus meeting submitted one set of program-wide scores. The scores were calculated using unweighted averages. As explained in the program quality assessment report (FYI, 2020), a score of 1 indicates that the practice is not in place, a score of 3 indicates that the practice is in place to a limited extent or a less advanced form, and a score of 5 indicates that the practice is frequent or widely available. In most categories, scores between 4.0 and 5.0 are excellent (FYI, 2020, p. 2). As shown in Table 11, the average of both site’s scores indicates high-quality SEL.

**Table 11**

*Post-Intervention SEL PQA Domain Scores*

	Plato	Socrates	Average score
Safe Environment	5	4.67	4.84
Supportive Environment	4.87	5	4.94
Interactive Environment	5	5	5
Engaging Environment	5	4.2	4.6

At both 2-4-1 sites at the Plato and Socrates schools, post-intervention scores in all four domains ranged between 4.2 and 5. The “Engaging Environment” scores between the sites showed the widest difference between sites of 0.8. The average of the two sites’ scores reflects that 2-4-1’s overall SEL program quality falls between 4 and 5 in all four domains.

### ***Paired Samples T-Test***

The researcher used a paired samples *t*-test to determine if there was a statistically significant change between the SEL PQA pre- and post-assessment data. Table 12 includes data from 2-4-1 at the Plato Magnet and Socrates Magnet for the four domains, including pre- and post-mean scores (M) and standard deviation (SD), along with the results of the *t*-test. Tables 12–15 include data from the SEL PQA domain scores from the 2-4-1 program at Plato and Socrates schools, including pre- and post-mean scores (M) and standard deviation (SD), along with the results of the *t*-test.

**Table 12**

#### *Safe Environment Domain: Paired Samples T-Test Pre- and Post-Intervention*

	N	M	SD	t	p < 0.10
Pre-Intervention	2	3.83	0.70	-3.00	0.10
Post-Intervention	2	4.84	0.23		

Mean values were compared for the “Safe Environment” domain in the SEL PQA pre-assessment (M = 3.83, SD = 0.70) and the post-assessment (M = 4.67, SD = 0.23). As shown in Table 13, there was a statistically significant increase in the “Safe Environment scores,”  $t = -3.00$ , from pre- to post-intervention. As a result, the researcher rejected the null hypothesis.

**Table 13***Supportive Environment Domain: Paired Samples T-Test Pre- and Post-intervention*

	N	M	SD	t	p < 0.10
Pre-Intervention	2	3.25	0.11	-21.85	0.015
Post-Intervention	2	5	0.00		

Mean values were compared for the “Supportive Environment” domain in the SEL PQA pre-assessment (M = 3.25, SD = 0.11) and the post-assessment (M = 5.00, SD = 0.00). As shown in Table 14, there was a statistically significant increase in “Supportive Environment” scores,  $t = -3.00$ , from pre- to post-intervention. As a result, the researcher rejected the null hypothesis.

**Table 14***Interactive Environment Domain: Paired Samples T-Test Pre- and Post-Intervention*

	N	M	SD	t	p < 0.10
Pre-Intervention	2	3.38	0.91	-2.19	0.13
Post-Intervention	2	4.94	0.09		

Mean values were compared for the “Interactive Environment” domain in the SEL PQA pre-assessment (M = 3.28, SD = 0.91) and the post-assessment (M = 4.94, SD = 0.09). As shown in Table 14, there was no statistically significant increase in the “Interactive Environment” scores,  $t = -2.19$ , from pre- to post-intervention.

**Table 15***Engaging Environment: Pre- and Post-Intervention Paired T-Test*

	N	M	SD	t	p < 0.10
Pre-Intervention	2	2.41	0.02	-5.29	0.06
Post-Intervention	2	4.60	0.57		

Mean values were compared for the “Engaging Environment” domain in the SEL PQA pre-assessment (M = 2.4, SD = 0.57) and the post-assessment (M = 4.60, SD = 0.57). As shown in Table 15, there was a statistically significant increase in “Interactive Environment” scores,  $t = -5.29$ , from pre- to post-intervention. As a result, the researcher rejected the null hypothesis.

**Research Question 1 Summary.** Using the SEL PQA pre-and post-data for 2-4-1 sports enrichment TOP Self OST programs at Plato and Socrates magnet schools, the researcher reviewed the percentage of growth for the four domains: safe environment, supportive environment, interactive environment, and engaging environment. The results showed that the quality of SEL at both sites improved in all four domains. The average of the two program scores for each domain fell between 4.6 and 5. Based on the SEL PQA program assessment reports (FYI, 2020), scores between 4 and 5 are excellent in most categories.

The researcher conducted a paired samples *t*-test using the pre- and post-intervention scores for each domain. The results showed a statistically significant change in safe environment, supportive environment, and engaging environment. The researcher rejected the null hypothesis. The results did not show a statistically significant improvement in the interactive environment.



### ***Research Question 2***

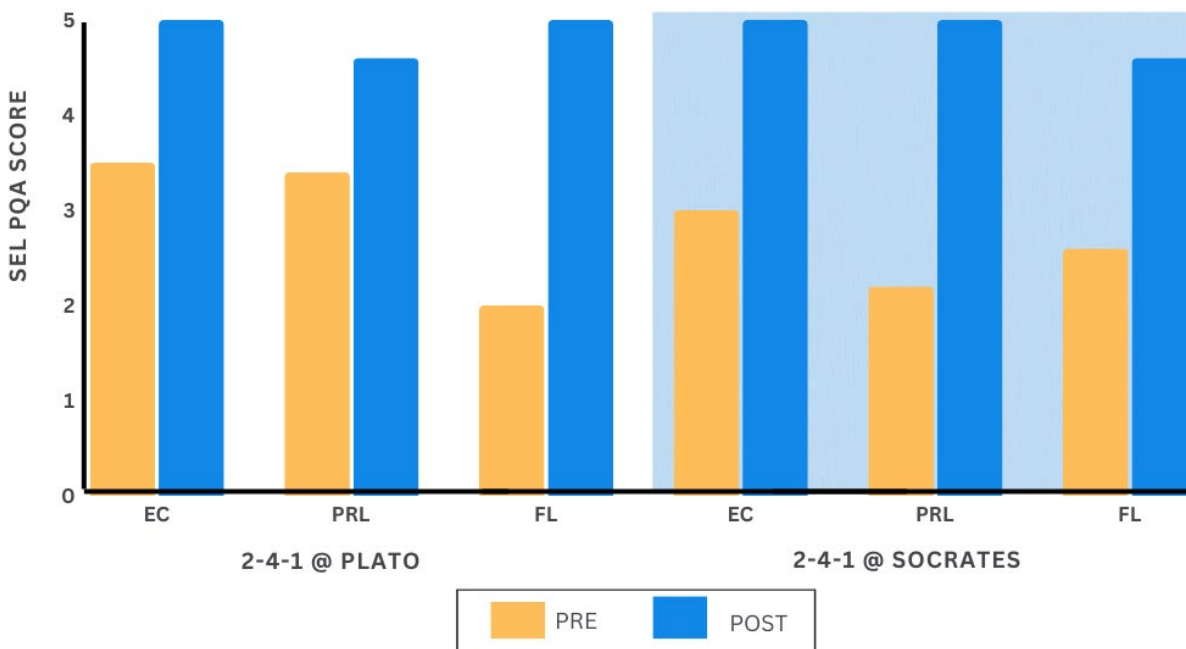
RQ 2: To what extent, if any, did the SEL program quality improve in each of the three focus areas: emotion coaching, furthering learning, and promoting responsibility and leadership following the SEL intervention?

The results of RQ2 determine the presence of improvement in three SEL PQA scales, which the 2-4-1 leaders identified as focus areas. The SEL intervention aimed to improve the quality of SEL practices and opportunities, as measured by an increase in three scales: emotion coaching (supportive environment domain), furthering learning (engaging environment domain), and promoting responsibility and leadership (interactive environment).

**Percentage of Growth.** The researcher examined descriptive statistics to identify growth in each of the three target areas using SEL PQA scales: emotion coaching, furthering learning, and promoting responsibility and leadership. Each scale comprises a set of items relevant to the domain. The scale score is the average of the items. Figure 12 illustrates the pre-assessment scores of the Plato and Socrates schools, followed by the post-assessment scores for each scale.

**Figure 12**

*Focus Area Scales Pre- and Post-2-4-1 at Plato and Socrates*



*Note:* EC= Emotion Coaching; PRL= Promoting Responsibility and Leadership.

FL= Furthering Learning.

As Figure 12 illustrates, observations at the 2-4-1 sites demonstrated improvement in all three scales. Regarding the scale “Emotion Coaching,” the pre-assessment score at Plato was 3.5, and the post-assessment score was 5.00, indicating 43% growth. At Socrates, the “Emotion Coaching” pre-assessment score was 3.00, and the post-assessment score was 5.00, indicating 66% growth. Regarding the “Furthering Learning” scale, the pre-assessment score at Plato was 2, and the post-assessment score was 5, indicating 150% growth. At Socrates, the “Furthering

Learning” scale pre-assessment score was 2.6, and the post-assessment score was 4.6, indicating 77% growth. Regarding the “Promoting Responsibility and Leadership” scale, the pre-assessment score at Plato was 3.40, and the post-assessment score was 4.60, indicating 35% growth. At Socrates, the “Promoting Responsibility and Leadership” scale pre-assessment score was 2.20, and the post-assessment score was 5.00, indicating 127% growth.

**Score Interpretation.** SEL PQA scores ranged from 1.0–5.0. Scored as a self-assessment, the team observed multiple offerings and, following a consensus meeting, submitted one set of program-wide scores. Scale scores were calculated using unweighted averages of related items. As explained in the program quality assessment report (FYI, 2020), a score of 1 indicates that the practice is not in place, a score of 3 indicates that the practice is in place to a limited extent or a less advanced form, and a score of 5 indicates that the practice is frequent or widely available. In most categories, scores between 4.0 and 5.0 are excellent (FYI, 2020, p. 2).

At both 2-4-1 sites at Plato and Socrates schools, post-assessment scores in the focus area scales ranged between 4.6 and 5. Table 16 shows the post-assessment scores for each site and the average score.

**Table 16**

*Post-Assessment Three Focus Area SEL PQA Scales*

	Plato	Socrates	Average score
Emotion Coaching	5.00	5.00	5.00
Furthering Learning	5.00	4.60	4.80
Promoting Responsibility and Leadership	4.60	5.00	4.80

### *Paired Samples t-test*

The researcher used a paired samples *t*-test to determine whether there was a statistically significant change between the SEL PQA pre- and post-assessment data for three focus area scales: emotion coaching, furthering learning, and promoting responsibility and leadership. Table (17–19) includes data from 2-4-1 at Plato and Socrates for the focus area three scales, including pre- and post-mean scores (M) and standard deviation (SD), along with the results of the *t*-test.

**Table 17**

*Emotion Coaching: Paired t-test of Emotion Coaching Pre- and Post-Intervention*

	N	M	SD	t	p < 0.10
Pre-Intervention	2	3.25	0.35	-7.00	0.05
Post-Intervention	2	5.00	0.00		

Mean values were compared for the “Emotion Coaching” scale in the SEL PQA pre-assessment (M = 3.25, SD = 0.35) and the post-assessment (M = 5.00, SD = 0.00). As shown in Table 17, there was a statistically significant increase in “Emotion Coaching” scores,  $t = -7.00$ , from pre- to post-intervention. As a result, the researcher rejected the null hypothesis.

**Table 18**

*Furthering Learning: Pre- and Post-Intervention Paired T-Test*

	N	M	SD	t	p < 0.10
Pre-Intervention	2	2.30	0.42	-5.00	0.06
Post-Intervention	2	4.80	0.28		

Mean values were compared for the “Furthering Learning” scale in the SEL PQA pre-assessment ( $M = 2.30$ ,  $SD = 0.28$ ) and the post-assessment ( $M = 4.80$ ,  $SD = 0.28$ ). As shown in Table 19, there was a statistically significant increase in “Emotion Coaching” scores,  $t = -5.00$ , from pre- to post-intervention. As a result, the researcher rejected the null hypothesis.

**Table 19**

*Promoting Responsibility and Leadership: Pre- and Post-Intervention Paired T-Test*

	N	M	SD	t	p < 0.10
Pre-Intervention	2	2.8	0.84	-2.50	0.12
Post-Intervention	2	4.8	0.28		

Mean values were compared for the “Promoting Responsibility and Leadership” scale in the SEL PQA pre-assessment ( $M = 2.30$ ,  $SD = 0.28$ ) and the post-assessment ( $M = 4.80$ ,  $SD = 0.28$ ). As shown in Table 19, there was no statistically significant increase in “Promoting Responsibility Leadership” scores,  $t = -2.50$ , from pre- to post-intervention.

**Research Question 2 Summary.** To determine the presence of improvement in the quality of SEL practices in three focus areas, the researcher examined the SEL PQA pre- and post-assessment data for 2-4-1 programs at Plato and Socrates magnet schools. The focus areas comprised three scales: emotion coaching, furthering learning, and promoting responsibility and leadership. The results showed that the quality of SEL at both sites improved on all three scales. The average of the two program scores for each domain fell between 4.8 and 5. Based on the SEL PQA program assessment reports (FYI, 2020), scores between 4 and 5 are excellent in most categories.

The researcher conducted a paired samples *t*-test using the pre- and post-intervention scores for each domain. The results showed a statistically significant change in emotion coaching

and furthering learning. The researcher rejected the null hypothesis. The results did not show a statistically significant improvement in promoting responsibility and leadership. Table 20 shows the scales that correspond to each domain.

**Table 20**

*Domains and Corresponding Focus Area Scales Based on Paired Samples T-Test Results*

Domain	Scales
Safe Environment (ss)	Safe Space
Supportive Environment (ss)	<i>Emotion Coaching (ss)</i> Scaffolding Learning Fostering Growth Mindset
Interactive Environment (nss)	Fostering Teamwork <i>Promoting Responsibility and Leadership (nss)</i> Cultivating Empathy
Engaging Environment (ss)	<i>Furthering Learning (ss)</i> Supporting Youth Interests Supporting Plans and Goals

*Note:* ss = statistical significance; nss = no statistical significance

Paired samples t-test results for each domain are consistent with the scale score paired samples t-test results. The researcher used qualitative research methods to answer the questions, seeking to understand the quantitative results.

### ***Qualitative***

Analysis of SEL PQA quantitative data indicates improvement based on the percentage of growth in all four primary domains: safe environment, supportive environment, interactive environment, and engaging environment, as well as three focus areas identified in subscales: emotion coaching, promoting responsibility and leadership, and furthering learning. A paired samples *t*-test indicates the presence of statistical significance in the improvement of three domains and two scales (Table 20).

After answering the first two quantitative questions, the researcher collected qualitative data to answer two RQs:

RQ 3: In what ways, if any, did the SEL intervention impact the quality of SEL in the OST program, as measured by the SEL PQA?

RQ4: What are the perceived benefits and challenges experienced by 2-4-1 instructors in implementing SEL-related instruction and practices following the intervention?

Prior to the SEL PQA pre-assessment and intervention, the researcher and the 2-4-1 directors informed the 2-4-1 coaches of the study and invited them to share their experiences and perspectives. Following the intervention and post-SEL PQA, the researcher emailed an invitation to share the pre- and post-SEL PQA scores for their schools and solicit their feedback regarding their experience facilitating SEL practices and delivering explicit SEL instruction and sharing feedback. During the week following the end of the 2-4-1 TOP Self fall program, the researcher facilitated one 30-minute semi-structured interview with the 2-4-1 directors and the 2-4-1 staff at Socrates, and one 30-minute semi-structured interview with the 2-4-1 directors and 2-4-1 staff at Plato (Appendix C). The researcher gathered qualitative data using transcripts from each audio-recorded interview. The researcher electronically transcribed the audio recordings and removed all references to names and any identifying features. To protect the anonymity of all the participants, the researcher attributes quotes or perspectives to no specific individual.

The researcher conducted two cycles of coding to create themes, which were reported as qualitative results (Creswell & Plano-Clark, 2018). For the initial cycle, the researcher used a combination of *in vivo* coding, which is applicable to participatory action research because it uses significant verbatim language and predefined codes based on the SEL PQA scales and the RQs (Coghlan & Brannick, 2014; Saldaña, 2021). For the second coding cycle, the researcher conducted focused coding, which involved grouping initial cycle codes based on frequency and significance to develop categories (Saldaña, 2021). Next, the researcher identified key themes

that convey the broad concepts represented by groups of categories. The researcher checked for qualitative validity through member checking and peer examination. A peer dissertation in practice researcher who examined the data for qualitative validity also conducted intercoder agreement to establish reliability, with an agreement rate of 97%. The researcher used the results to answer two RQs, seeking to understand the impact of the intervention on SEL practices and instruction (RQ3) and to gain insights into the perceived barriers and benefits of SEL in 2-4-1's sports enrichment programs (RQ4).

### ***Research Question 3***

The objective of RQ3 was to understand the results through the perspectives of the 2-4-1 coaches at Plato and Socrates magnet schools and to learn new information about how, if at all, the SEL intervention impacted SEL quality, particularly in the three focus areas the intervention aimed to improve.

RQ 3: In what ways, if any, did the SEL intervention impact the quality of SEL in the OST program, as measured by the SEL PQA?

The 2-4-1 instructors' perspectives about the study's intervention and its impact fall into two categories: heightened awareness of SEL and alignment with SEL. The themes identified in the heightened awareness category included intentionality, explicitness, modeling, and consistency. The themes identified in the category of alignment included the 2-4-1 instructors' perceived compatibility of the 2-4-1 TOP Self program with the school theme, their role within the school, and personal values.

**Heightened Awareness of SEL.** During focus group interviews at Plato and Socrates magnet schools, 2-4-1 instructors conveyed a heightened awareness of the importance of SEL practices and opportunities within the 2-4-1 TOP Self program because of the SEL intervention.



The impact of the intervention showed up through reflections on their professional approach-specific themes of intentionality, explicitness, modeling, and consistency of SEL implementation. Their reflections corresponded to practices and opportunities within all SEL PQA domains and the three focus area scales to varying degrees, especially emotion coaching.

***Intentional SEL.*** During both focus groups, each 2-4-1 instructor reflected on their intentional approach to SEL implementation during the intervention one or more times. 2-4-1 instructors at both schools referenced taking time to focus on their approaches. One 2-4-1 instructor put it this way: “My partner (2-4-1 instructor) and I really talked about it in the weeks after you (started) coming in.” Another instructor added, “They made sure to check in with each student every single day.” A third instructor commented, “I never really understood that SEL was a big deal (for 2-4-1). I just thought of it as a sports program.” The third instructor’s partner remarked, “Because of the intervention, I was definitely much more conscientious about SEL and doing the TOP Self lesson and the check-ins.” One focus group shared that in the initial weeks of the intervention, the researcher’s email communication did not give them adequate time to prepare. They proposed providing plans and expectations in advance in one reference manual for the future. The theme of intentional SEL connects the impact of the SEL intervention on SEL, in general and on the emotion coaching practice of supporting all young people to name emotions.

***Explicit SEL.*** Along the same line of intentionality, all four instructors referenced the explicit nature of their approach (Table 21).

**Table 21***SEL Explicitness*

SEL PQA Scale	
Emotion Coaching	<p>“I made an effort to really name emotions in conversations.”</p> <p>“...made sure to review all the TOP Self strategies during our circle.”</p>
Furthering Learning	<p>“I think it helps for the kids to know that they are here not just for the sports but for the SEL, too.”</p> <p>“During shout-outs we (coaches) make a point to be explicit and point out something we saw happen that morning like an example of great teamwork or being kind to one another. And they naturally shout each other out. I think when they hear it, it makes them want to do something so they can get a shout-out.”</p>

Table 21 shows contributions from three instructors discussing a focus on making SEL explicit, either in emotion-naming, reviewing emotion regulation strategies, or informing students about the value of SEL in the 2-4-1 program. These examples correspond to the impact of the SEL intervention targeting emotion coaching and furthering learning.

***SEL Modeling.*** 2-4-1 instructors noted the dual impact of the intervention in terms of learning through 2-4-1 leaders’ modeling, as well as the power in the way they modeled SEL competencies. During separate focus groups, one or more coaches used the word “modeling” in reference to how they implemented SEL during the 2-4-1 TOP Self programs, as well as the impact of their modeling SEL practices on student participants. The participants in both focus groups credited the 2-4-1 directors for modeling the TOP Self lessons when the program first started during the previous school year. They provided examples of the ways in which they modeled emotion coaching practices during the intervention. One 2-4-1 instructor shared, “I’m well known for saying, ‘What you are doing right now is putting me “in the red” (referring to the TOP Self emoji), so I’m going to walk away and use a strategy.” A 2-4-1 coach in the other host

site's focus group commented, "(during TOP Self) I have my eyes closed... I enjoy modeling it." These examples of how they purposefully modeled SEL practices during the intervention explain how they helped students understand ways to handle emotions constructively. While references to modeling SEL practices correspond to the quality of emotion coaching practices, they do not specifically refer to the impact of the SEL intervention.

***Consistent SEL Implementation.*** Throughout the intervention, the 2-4-1 instructors remarked on the impact of consistently following the 2-4-1 TOP Self lesson format and the repetitiveness of their SEL practices. Every day, they checked in with students to ask how each student was feeling emotionally, discussed constructive ways to handle difficult emotions, and explored the causes of students' emotions. They referred to how they made a point to scaffold sports instruction and encouraged students to use sports and SEL skills and strategies on their own.

2-4-1 instructors in both focus groups referenced the presence of the TOP Self emoji graphic as playing a role in how they were able to acknowledge and help students name an emotion. One instructor remarked, "I was very surprised that it got to the point that the kids could name all the different social-emotional strategies we had been practicing without any prompting." Instructors at both sites acknowledged the significance of 2-4-1 CARE leaders' weekly visits, commenting in a confessional tone that they "did not always do (a shout-out circle or TOP Self lesson) every day." The SEL intervention impacted the instructors' consistent implementation of SEL practices pertaining to emotion coaching and furthering learning.

2-4-1 instructors at both Plato and Socrates magnet schools credited the impact of the consistent implementation of high-quality SEL practices that promote responsibility and leadership during the intervention. Both 2-4-1 instructors at each 2-4-1 magnet school site shared

examples of “growth in our PLPs.” At one school, they gave an example of a quiet student who became more assertive and outgoing as they gathered younger students together for an activity. They noticed that a student whom they knew to be restless and easily distracted during the school day was a “huge asset” at 2-4-1: “He’s mature. Instead of thinking about himself, he’s thinking about the group and helping the young kids.” The 2-4-1 instructors also referenced a student who showed leadership skills and was “like a PLP.”

Similarly, 2-4-1 instructors at the other magnet school site shared, “What we started to notice is that those natural PLP’s started to come out of students. They started going over to the younger kids and asked them to join in. That was nice to see because it was the kids you might expect to show those qualities.” The 2-4-1 instructors’ remarks indicate the impact of the structural presence of opportunities for some students to serve as mentors and leaders and appreciate the growth they observed because of students’ consistent engagement with those roles, as well as the influence of those roles on younger students to initiate leadership behaviors.

### **Alignment with SEL**

*School Theme Alignment.* While reflecting on the new or heightened awareness of SEL implementation during 2-4-1 TOP Self, 2-4-1 instructors noted the strong alignment with the character education theme of Plato and Socrates magnet schools. One instructor described 2-4-1’s SEL practices as a “natural match” and that they “mesh” 2-4-1’s SEL with the schoolwide approach. Another instructor in the same focus group reflected, “(we tell them) You have all the (self-regulation) strategies we teach you during the school day; now you also have 2-4-1 strategies. You just have this huge bucket of possibilities to help you regulate.” A 2-4-1 instructor at the other site compared the mindfulness practices to the school’s schoolwide mindfulness approach and to a new schoolwide initiative to implement the SEL curriculum,

RULER (Brackett et al., 2012). The prevalence of comments pointing out connections between the school theme and 2-4-1 TOP Self does not pertain to the intervention’s impact on high-quality SEL practices.

***Educator Role Alignment.*** 2-4-1 instructors identified the alignment between their roles in the OST sports enrichment program, their roles as educators, and, in some cases, as sports team coaches. The participants in both focus groups referenced the benefits of being a physical education teacher, a sports team coach, or a special educator and having a partner with complementary skillsets from the standpoint of emotion coaching practices and furthering learning practices pertaining to sports skill development and encouraging students to extend knowledge by self-initiating self-awareness and self-regulation strategies (Table 22).

**Table 22**

*Role Alignment*

SEL PQA Scale	
Emotion Coaching and Furthering Learning	<p>“...The visual (TOP Self Emoji Graphic)—kids talk about it in class to their friends and they’ll say— ‘that’s where I am.’ And when they come to me (for P.E. class) there’s probably one kid in every class that comes to 2-4-1. So, they’re able to name it and help their friends, which is nice, but. I like leaving it there just...it relates to everything that we do.”</p> <p>“I have definitely drawn on my years of coaching to push kids a little more to stretch their (sports) skills and to coach them like they’re in training to improve how you deal with the ups and downs that come hand in hand with sports.”</p> <p>“During the regular day I use the TOP Self strategies with the 2-4-1 kids and other kids to help them regulate.”</p>

Quotes in Table 22 exemplify ways that 2-4-1 impacted the participants’ roles as educators during the school day. Students referenced the 2-4-1 TOP Self graphic posted in their gym to name their feelings, and students who participated in 2-4-1 spontaneously supported

classmates in naming their emotions during their physical education class during the school day. Similarly, a 2-4-1 instructor reflected on the ways in which their background as a sports coach supported their success in the OST sports enrichment program to develop students' sports and SEL skills. Within the theme of role alignment, the intervention impacted the quality of a 2-4-1 instructors' practices pertaining to emotion coaching and furthering learning.

*Alignment with Personal Values.* 2-4-1 instructors at both sites shared examples of how their personal values impact the quality of SEL practices in the 2-4-1 OST program. One noted that emotional awareness and naming feelings do not come naturally to them and that during the previous year, as a 2-4-1 instructor, they struggled to implement the TOP self-mindfulness activities. Comparing the previous year to the current one during the SEL improvement intervention, they found breathing exercises to be soothing. "I have my eyes closed during the breathing exercises so I might not see what they are doing, but I enjoy it." In this way, the 2-4-1 instructor noticed how their personal enjoyment and values evolved during the SEL intervention.

Conversely, a 2-4-1 instructor at another site explained how their personal style and professional values naturally enhanced high-quality SEL practices. "(I learned) that regardless of your position in the building, you should greet every student by name. So, it's embedded in me...When I see kids, I'm genuinely happy to see them. And I know (my 2-4-1 partner) is the same way.... It has to be genuine... (when it comes to) caring for kids you can't fake any of it. They can sense that. It makes a huge difference for them to know that you're happy they're here." This 2-4-1 instructor's partner pointed out that most adults do not know how to label their feelings or understand how they factor into situations and reflected on ways the school's theme impacted their organic approach to SEL practices throughout the day. These comments and similar ones illustrate examples of the mutual benefits of personal and professional SEL

alignment. For some instructors, previous training in high-quality SEL practices is not indicative of the impact of the SEL intervention. However, the SEL intervention did impact one instructor's comfort level and intrinsic appreciation for high-quality emotion coaching practices.

**Research Question 3 Summary.** To understand how the targeted intervention impacted SEL quality improvement in three focus areas, the researcher conducted two semi-structured focus group interviews with all four 2-4-1 instructors at the Plato and Socrates magnet school sites. After conducting the first and second coding cycles of the audio-recorded transcripts, the themes fell into two categories: heightened SEL awareness and SEL alignment. Themes pertaining to heightened awareness include intentionality, explicitness, modeling, and consistency of SEL implementation. SEL alignment themes correspond to the host magnet school theme, 2-4-1 staff's primary roles as educators and backgrounds as sports coaches, and 2-4-1 instructors' personal and professional styles.

The qualitative analysis results indicate that the targeted SEL intervention directly impacted 2-4-1's SEL practices in two focus areas: emotion coaching and furthering learning. Within the heightened awareness of SEL, qualitative data analysis indicates that the SEL intervention directly impacted the 2-4-1 coaches' intentionality, explicitness, and consistency of SEL implementation. Although evidence is lacking in clear ties to the intervention, SEL consistency connects to the improvement in the quality of student engagement in responsibility and leadership opportunities. The theme of SEL modeling indicates that the 2-4-1 instructors' implementation of high-quality emotion coaching practices corresponds with the impact of previous training during their first year of the program and not specifically with the SEL intervention.

The alignment theme suggests that the SEL intervention had an uneven impact on improving emotion coaching and furthering learning SEL practices. For example, 2-4-1 instructors noted the 2-4-1 TOP Self sports enrichment program's compatibility with their magnet school's character education theme and pointed out ways in which emotion coaching practices complement the character education curriculum. The host magnet schools' character education theme created conditions that enhanced the 2-4-1 instructors' capacity to improve the quality of SEL practices during the intervention. Regarding the alignment of the 2-4-1 instructors' concurrent roles as educators and, in two cases, sports team coaches, the SEL intervention impacted students beyond those enrolled in the sports enrichment OST program in the focus areas of emotion coaching and furthering learning. The theme of personal alignment indicated that the SEL intervention impacted one 2-4-1 instructor's personal comfort and enjoyment in emotion coaching.

**Research Question 4.** The researcher used the results obtained through the analysis of the semi-structured focus group interviews to understand the 2-4-1 instructors' perspectives on the benefits and challenges of SEL-related instruction and practice implementation in 2-4-1's sports enrichment OST program following the SEL intervention. The results answer RQ 4: What are the perceived benefits and challenges experienced by 2-4-1 instructors in implementing SEL-related instruction and practices following the intervention? The themes in the categories of heightened SEL awareness, intentionality, explicitness, modeling, and consistency, and the school, role, and personal themes in SEL alignment contain multiple student-centered benefits such as emotional awareness and regulation, holistic well-being, and connection with others, as well as adult-centered challenges related to student access and staff expectations.



***Emotional Awareness and Regulation.*** 2-4-1 instructors at both host schools shared that most students demonstrated an improvement in their ability to name their feelings, connect them to a context, and use constructive ways to manage them. They shared how the TOP Self emoji graphic reduced language barriers for early elementary students and for students with multiple disabilities. “Our younger friends especially, may not be able to name the emotion necessarily but they can tell you if they are in the red, or blue and that helps us to pair that with words like angry or sad...that helps me to have conversations about why they are feeling frustrated and you’ve seen me help another student work out a problem they are having with another student.”

Another 2-4-1 instructor observed an overall improvement in students’ ability to name and manage their feelings during the SEL intervention, “... last year we didn’t see that growth because (this year) we were explicitly naming feelings.” They pointed out one student as a prime example of someone who made progress naming feelings and sharing them with the group in a TOP Self circle. “He said, I’m feeling at home base, but also a little blue because this is our last week of 2-4-1 for this session...that is genuine, right?”

Both focus groups highlighted one student who had made progress in self-regulation during the SEL intervention. “One student- I didn’t really know him when we first started. He used to have breakdowns every single time he was here and the last four times- no breakdowns.” At the other magnet school site, instructor noticed a reduction in one student’s chronic anxiety and anger during the fall session, which they believed was connected to the TOP self-activities, the consistent activity format, and the focus on play and engagement versus skill development and compliance. “He ended the last session saying, ‘I’m at home (base)’ which is huge because ...historically he lives in that red, angry place.”

**Holistic Well-being.** All 2-4-1 instructors remarked on the holistic benefits of the 2-4-1 TOP Self's curriculum, which focused on physical activity, sports, and play as natural SEL conduits. One coach put it this way, "...because of COVID the last few years have been really difficult for families. (2-4-1 TOP Self) is the perfect connection to get kids moving and interested in sports again. Especially here in this community—it's hard for families to get their kids involved in after school sports. I mean, it's not always accessible." Another instructor noted, "Tying social-emotional coping strategies when they're playing a sport gives kids built-in opportunities to manage frustration."

A 2-4-1 instructor in the other focus group noted, "SEL is embedded in sports more than you realize. Just having free play and a safe space to fail (during 2-4-1 TOP Self) is not something they have at recess." One instructor said, "And it's about the doing- we are not teaching them a sport; they're experiencing it." Three instructors identified the morning as an ideal time of day for the sports enrichment OST program, citing reasons such as ensuring that students come to school on time and kids get time to play with their friends: "Get their energy out, have a good time and forget whatever they have to do" before they start their school day.

**Connection.** The OST sports enrichment staff referenced ways in which SEL implementation fosters connection. One instructor shared that making a point to check in daily with kids to ask how they are feeling strengthened the student– instructor bond. "If they can get that one-on-one time with you, even just a little bit when you ask how you are doing, it helps them, and it connects me to them." Another instructor shared that their check-ins went beyond naming a feeling because they asked additional questions that helped them get to know their students on a more personal level.

The 2-4-1 instructors appreciated the relationships that developed between the students during the intervention. They particularly noted that many younger students enjoyed playing with older PLPs. They felt that the check-ins also helped them understand their kids' needs, which supported their ability to guide them in the sports activity or pair them with a PLP or an empathic student. They also appreciated ending each morning session with the shout-out circle where they could shout-out students "for being a good friend to someone who needed it."

***Adult-Centered Challenges.*** When asked about the challenges of implementing SEL, instructors at both sites said that the main challenge was related to student tardiness to the program. "If they come in 20 minutes late, we have already done the important (SEL) work." On a related note, one instructor wondered about the students' reliance on their parents to get them to school earlier to participate in the sports enrichment OST program. "If the kids are here, it's because they want to be here, and their parents took the time to sign them up and get them here." The instructor wondered about how that influences student behavior and engagement "because the kids know, you when you are here, you are active; no one is just sitting around." While access is not specifically about SEL implementation during the intervention, both sites named it the main challenge.

At each site's focus group, one 2-4-1 instructor provided constructive feedback related to experiencing a higher level of demand during the SEL intervention. Both instructors shared that when they began working with 2-4-1 during the previous school year, they were excited about the aspect of play-based sports enrichment. When the intervention was introduced, they were surprised that SEL was so important to the program. The instructor at the other magnet school site added, "Getting the plans on Sunday nights, which is prep for most teachers felt last minute." Both instructors also provided suggestions to promote the benefits of play and sports

experiences. To ease the SEL implementation for new programs at community schools and magnet schools with other themes, they emphasized the importance of choosing the right staff with a sports or physical education background and suggested providing a platform with all the sports and SEL activities outlined in a simple format, making TOP Self training videos, and being present during the first few weeks of the program to model the session format and SEL activities and practices.

**Research Question 4 Summary.** 2-4-1 instructors noticed many benefits of SEL implementation in the sports enrichment OST program following the intervention. They shared multiple examples of the general benefits of emotion coaching practices, such as naming feelings and using strategies they learned during the TOP Self circle to manage difficult emotions constructively. They celebrated the TOP Self emoji graphic to reach students across developmental stages and ability ranges. Specific students at both sites demonstrated improvement in self-awareness and self-regulation competencies. SEL implementation within the play-based sports enrichment format holistically benefits student well-being. The SEL implementation also strengthened coach–student relationships as well as peer connections.

The 2-4-1 instructors identified adult-related challenges to SEL implementation. Students who arrived late in the morning program missed the TOP Self circle and group check-in process. Students who attend the sports enrichment morning program depend on their families to sign them up and get them to the program. 2-4-1 instructors wondered about student access as an equity issue. Furthermore, the participants in both groups found it challenging to adjust to the SEL intervention in the OST program, primarily focused on play-based sports activities. They provided ways to support new 2-4-1 TOP Self programs to promote ease and ensure implementation.

## Summary of Results

This action research dissertation-in-practice study used a mixed methods explanatory sequential design to answer RQs to determine the improvement of SEL quality in 2-4-1's sports enrichment OST program following an SEL intervention and to understand the extent of the impact of the intervention targeting SEL improvement in three focus areas. The researcher obtained and analyzed quantitative pre-and post-intervention data using research-validated SEL PQA scores (FYI, 2021). Next, the researcher conducted semi-structured focus groups with the OST sports enrichment staff at the study sites, seeking to understand the impact of the intervention and to explore the benefits and challenges of SEL implementation following the intervention. The researcher analyzed the text from the interviews using first- and second-cycle coding methods to identify themes that served as the qualitative results (Saldaña, 2021).

The quantitative results indicate improvement in 2-4-1 TOP Self SEL quality based on the percentage of growth between the SEL PQA pre- and post-assessment scores at Plato and Socrates magnet schools, the study's two 2-4-1 host sites. The researcher conducted paired samples t-tests to determine statistical significance in the improvement of the SEL PQA's four domains and the SEL intervention's three focus areas. The quantitative analysis determined statistical significance in the improvement of three domains—safe environment, supportive environment, and engaging environment—and two corresponding focus areas—emotion coaching and furthering learning.

The qualitative results demonstrated the SEL intervention's impact on the overall quality of SEL practices and opportunities. The qualitative results correspond with the quantitative results, showing the SEL intervention's impact on SEL implementation pertaining to two focus areas whose improvement indicated statistical significance: emotion coaching and furthering

learning. 2-4-1 TOP Self instructors at both host magnet school sites credit their schools' character education theme and their professional background for enhancing their capacity to improve SEL quality during the intervention. The qualitative results verified notable improvement in the third focus area: promoting responsibility and leadership. 2-4-1 instructors cited external adult-centered challenges to SEL implementation, such as student access to the program and the manner of SEL intervention email communication. The concluding chapter of this dissertation in practice discusses the findings, addresses the study's limitations, and provides practice and further research recommendations.

## **Chapter 5: Discussion of the Results**

Students who participate in OST programs benefit academically and socioemotionally (Durlak et al., 2010; Mahoney & Weissberg, 2018). Sports enrichment OST programs promote skills that promote learning, well-being, and collaboration (Anderson-Butcher, 2018; Center for Disease Control, 2019). When schools re-opened following the COVID-19 global pandemic, the US Department of Education distributed ESSER funds addressing safety, learning loss, SEL, and enrichment opportunities (Engage Every Student, n.d.). While stakeholders and experts agree on the importance of OST programs, program directors and educators grapple with ways to measure their impact (Afterschool Alliance, 2022).

Informed by a continuous decline in school climate, schools partnered with OST programs using ESSER funds to increase student well-being and a sense of connection and belonging. As a dissertation in practice, this research study sought to leverage the value of an OST sports enrichment program by addressing the quality of SEL. Guided by the Improvement Science framework, this dissertation in a practice action research study, followed the PDSA cycle. This chapter aligns with the act phase and includes a discussion of the findings and recommendations for future research and practice (Perry et al., 2020).

### **Summary of the Study**

After identifying the problem of practice, the researcher considered the root causes and elements most likely to influence positive change. Next, the researcher reviewed the current literature and consulted with experts to create a working theory of improvement using an intervention designed to leverage one driver. Using an action research approach, the researcher designed a mixed methods sequential explanatory study to answer RQs to determine the presence of change and to understand the intervention's impact.

The aim of this study was to improve the quality of SEL in 2-4-1 CARE's sports enrichment OST program at two host sites: Plato and Socrates magnet schools. As 2-4-1 CARE's chief program officer, the researcher facilitated a pre- and post-assessment using the SEL PQA (FYI, 2021). A trained SEL PQA scoring team consisting of the researcher and 2-4-1 leaders and staff conducted an internal pre-assessment during the second week of their fall program at both magnet school sites. Informed by the pre-assessment data, the researcher collaborated with 2-4-1 CARE's directors to design an SEL intervention targeting three focus areas. The SEL intervention included job-embedded professional learning and coaching, including email, video presentation, and onsite visits consisting of modeling and follow-up conversations. The researcher and 2-4-1 directors implemented the intervention for the remainder of the fall session. The same SEL PQA scoring team conducted a post-assessment at the same sites during the eighth and final week of the fall session. The researcher analyzed the quantitative data using the pre- and post-assessment scores to determine the change in SEL quality. Following the post-assessment, the researcher conducted semi-structured focus groups with the 2-4-1 CARE staff at both sites to explore the impact of the intervention. Using data from the focus group interviews, the researcher analyzed the qualitative results to determine and understand how the SEL intervention impacted improvement.

### **Discussion of the Results**

The findings indicate that the quality of 2-4-1 CARE's SEL practices improved at both magnet school sites based on the SEL PQA scores in all four domains and in the three focus areas following the intervention. Three of the four domains and two of the three target areas demonstrate statistically significant growth. The focus group findings from both study's magnet school sites highlight several ways in which the SEL intervention impacted the positive change



in the three SEL PQA focus areas. The following discussion reviews the findings, provides notable aspects of the results in relation to previous research, and offers reflections related to the study's strengths and limitations.

### ***SEL Quality Improvement and the Impact of the Intervention***

A comparison of the pre- and post-intervention SEL PQA scoring data shows that the quality of 2-4-1 CARE's SEL practices and opportunities improved in both the study's sites in all major areas: safe environment, interactive environment, supportive environment, and engaging environment. A comparative analysis shows statistical significance in the improvement of safe, supportive, and engaging environments. These results suggest that the SEL intervention consisting of job-embedded professional learning and coaching improved the quality of SEL in these domains.

Regarding the SEL intervention's targeted three focus areas, the quality of SEL practices and opportunities improved at both sites in the areas of emotion coaching, promoting responsibility and leadership, and furthering learning. Comparative analysis results show statistically significant improvements in emotion coaching and furthering learning. These results suggest that the SEL intervention improved the quality of two of the three targeted areas. Following the intervention, the post-assessment SEL PQA domain and target area scores fell between 4.2 and 5.0, indicating high-quality SEL practices and opportunities at 2-4-1 CARE's sports enrichment programs.

While the quality of SEL practices at the 2-4-1 site at Socrates Magnet showed the most growth based on pre-and post-intervention SEL PQA scores, the quality of emotion coaching practices was proportionately similar; 2-4-1 at Plato showed 44% pre-post growth, and Socrates showed 66% pre- to post-improvement (See Figure 12). Both program's pre-assessment scores

were 3 or higher, indicating adequate quality, and both programs' post-assessment scores were 5. To achieve a score of 5, the quality of all supporting items must also be 5. The SEL PQA uses a rubric with observable practices that serve as scoring criteria, and the SEL PQA handbook supplies an explanation of the item and clarifying examples. To earn a score of 5, two of the items must be consistently present; another identifies the way staff conducts a practice. For the item relating to naming emotions, staff must "ask all students to name, describe or identify the intensity of their emotions" (FYI, 2020, p. 7). Evidence of high-quality emotion coaching practices demonstrates the clear impact of the SEL intervention on emotion coaching.

**2-4-1 Instructors' Intervention Perceptions.** Data from the semi-structured focus group with all 2-4-1 instructors from both study's sites helped explain how the intervention influenced the improvement of SEL quality. All instructors noted heightened awareness of the role of SEL in 2-4-1 CARE's sports enrichment program. They shared the experience of intentionality in practices specific to emotion coaching and furthering learning, contextually, throughout each session, as well as in the delivery of 2-4-1's daily TOP Self mindfulness activities and closing shout-outs.

***Emotion Coaching.*** 2-4-1 instructors' perceptions indicate that the study's SEL intervention directly impacted the quality of emotion coaching. During both focus groups, instructors described increased intentionality in all four observable practices in the SEL PQA: acknowledging, naming, constructively handling, and understanding the causes of emotions (FYI, 2021). During the intervention, the researcher introduced the plan, explained why it was important, and shared high-quality approaches to emotion coaching practices. The researcher emphasized the importance of instructors asking each student how they are feeling every day. The researcher created a handheld 2-4-1 TOP Self emoji graphic and provided suggestions for an

existing time within the program format to conduct the check-in. The researcher also provided programs with the option for one coach to take ownership of emotion coaching and provided them with the autonomy to implement the practices authentically. While focus group feedback directly connected the intervention to improvement, 2-4-1 instructors focused on their approach to the practices during the intervention.

***Promoting Responsibility and Leadership.*** The 2-4-1 instructors noticed the value and growth of the PLPs, who assist adults and serve as mentors and leaders in sports activities. They attributed the improvement to the PLPs' consistent participation and the impact on their intrinsic motivation to lead. It is interesting to note that all observable items, the SEL PQA emotion coaching and furthering learning scales, measure adult practices. However, the items that support the presence of high-quality SEL related to promoting responsibility and leadership include two practices and three opportunities. This distinction is relevant for several reasons.

The SEL intervention targeting emotion coaching and furthering learning involved interactions between the 2-4-1 leaders and the 2-4-1 coaches, such as email communication, video presentation, and on-site discussions. However, the strategies to strengthen the scale of promoting responsibility and leadership only involved interactions between the 2-4-1 directors and the student PLPs. Although the instructors observed a growth in the quality of the PLPs' engagement, they were not directed to change or improve their approaches to the quality of promoting responsibility and leadership during the SEL intervention. It is possible that the lack of 2-4-1 instructor assignment scale explains the absence of statistical significance of this improvement. Conversely, the 2-4-1 instructors' observations of improvements in their PLPs' leadership and mentoring skills strongly suggest the intervention's impact.

***Furthering Learning.*** 2-4-1 instructor focus groups at both host magnet school sites indirectly linked the intervention to the improvement in the quality of furthering learning practices. Instructors referred to increased intentionality in all five observable items in the SEL PQA: supporting connections to previous knowledge, linking examples to principles, encouraging the extension of knowledge and logical reasoning, and guiding discovery. During the semi-structured interview, responses from all instructors pertaining to furthering learning practices referenced students' application of 2-4-1's SEL self-awareness and self-regulation curriculum. For example, instructors in both groups shared ways that supported students' understanding of feelings and their causes, encouraged, and praised students for using a TOP Self mindfulness strategy independently during the OST program or the school day, and pointed out to students the way sports-specific situations help them practice self-awareness and self-regulation strategies.

During the intervention, the researcher explained the purpose of the intervention and emphasized 2-4-1 CARE's commitment to adding value to the students and the school beyond the morning program. The researcher communicated through email, a brief video presentation, and during site visits during conversations with coaches. The researcher also modeled furthering learning practices during shout-outs. Although the statistically significant improvement in the SEL PQA scores suggested the successful impact of the intervention, the instructors' focus group responses did not explicitly connect the improvement in their practices with the intervention. It is possible that 2-4-1's decision to improve SEL to leverage the role of their school partnerships prompted the instructors to prioritize TOP Self self-awareness and self-regulation skills using practices associated with Furthering Learning.

*Pre-Existing Conditions, Roles, and Values.* Data from both focus groups also conveyed the importance of alignment with SEL from the standpoint of their magnet schools' character education theme, their dual roles as teachers at the host schools, and their personal values. In many ways, these conditions helped support the intervention's aim. In other words, as teachers in a school with an SEL-aligned theme, they were prepared to engage in 2-4-1's SEL intervention and had opportunities to intentionally implement SEL practices throughout the school day.

They noticed how students in 2-4-1 continued to use 2-4-1's curriculum to promote self-awareness and self-regulation. One instructor remarked that students also used the sports skills and gameplay they had learned at 2-4-1 in their physical education class. In some ways, 2-4-1's SEL intervention added to their repertoire of approaches during the school day. For example, an instructor at one school remarked on how 2-4-1's SEL intervention helped shape his understanding and comfort level with feelings identification and mindfulness practices.

Following the intervention, the 2-4-1 instructors identified many student-centered benefits related to implementing SEL in the sports enrichment morning program. The participants at both host sites celebrated specific students' emotional growth in feeling identification and self-regulation. They also noted improvement in specific students' social skills, including teamwork, the willingness to share their feelings with the group, their connections with peers, and their ability to play as part of a team. The 2-4-1 instructors at both sites celebrated the power of physical activity and play to promote SEL development. The coaches shared the ways in which they benefited from the SEL intervention. They appreciated the relationships they had developed with the students because of daily check-ins. One coach volunteered that compared to the previous year, they were more consistent in leading the TOP Self lessons and discovered a new enjoyment in mindfulness.

The 2-4-1 instructors also shared the benefits of implementing SEL that were not specific to the intervention. They pointed to the ways in which authentic opportunities to solve problems and work together improve students' self-confidence and resilience. They noted how the opportunity for students to be physically active and play first thing in the morning helped set them up for a successful school day. One instructor identified equity-specific benefits, such as the value of low-income students accessing sports, the importance for students accessing play-based physical activity after being socially isolated during the global pandemic, and the advantage the morning program gave working parents who could drop their students off to school on their way to work.

### ***Connecting the Results to Prior Research***

The results of this study connect to research related to SEL as it relates to OST. The power of high-quality SEL in OST programs connects with the intentional implementation of evidence-based SEL practices and approaches that target SEL competencies (Blyth, 2018; Leschitz et al., 2023; Mahoney & Weissberg, 2018; Smith et al., 2016). During the initial phase of the study, 2-4-1 CARE directors shared confidence in the SEL benefits of their sports enrichment OST program and, at the same time, expressed concern about the quality of SEL based on inconsistent implementation of the SEL curriculum, TOP Self, and weak evidence of the program's impact on students' self-awareness and self-regulation competencies. 2-4-1 instructors reflected on their increased intentionality in promoting self-awareness and self-regulation during the SEL intervention. They also shared how their heightened awareness of 2-4-1 CARE's prioritization of SEL informed their overall approach. Their heightened focus on SEL may help explain the overall increase in SEL PQA pre- and post-scores within all domains.

### ***Connecting the Results to Previous Research on SEL, Sports, and OST***

2-4-1 CARE's successful SEL intervention reinforces recent research suggesting sports as a perfect context to build socioemotional skills when adults focus on relationships, create an emotionally safe environment, focus on effort over achievement, and model positive social-emotional behaviors (Kahn et al., 2019). According to the observation-based SEL PQA scores, both sites demonstrated high-quality practices connected to the domains associated with these recommendations. Safe environment practices include fostering a positive emotional climate, conveying warmth and respect, supporting a safe space, and demonstrating mutual accountability and active inclusion. The supportive environment domain includes a scale with observable practices that foster a growth mindset. As they actively engaged with the students, 2-4-1 instructors intentionally modeled sports and SEL skills. Because of this study, the researcher learned how the SEL PQA tool effectively evaluates the presence of these and other evidence-based practices in 2-4-1's sports enrichment OST.

The character education theme of the two host sites may have influenced the positive impact of the intervention. As character education-themed schools, the school communities offered an SEL-friendly context. During the semi-structured focus groups, instructors at one school site remarked more than once on 2-4-1 TOP Self as being well-aligned to the school theme and referenced the school's focus on student well-being. On the other hand, the instructors also shared ways that 2-4-1 TOP Self's approach enhanced their professional approach during the school day. 2-4-1 CARE's partnership supports Plato's and Socrates's theme-aligned commitment to schoolwide SEL (CASEL, 2023).

## **Strengths of the Study**

The researcher noted several strengths of this study. Researchers interested in replicating a similar approach are encouraged to consider the following recommendation: conduct an internal assessment using the SEL PQA. This valid and reliable tool provided the 2-4-1 CARE team with an opportunity to evaluate and discuss the quality of the program. The observation-based scoring process includes training and a detailed scoring handbook that the researcher found easy to use. The online scoring platform creates reports that include recommendations for specific training to strengthen skills. The SEL PQA was designed according to an earlier quality assessment tool and evidence-based SEL practices in exemplary OSTs (FYI, 2021).

### ***Engage in a Pre- and Post-Intervention Assessment Process as Part of a Continuous Improvement Cycle***

The SEL PQA is designed to support continuous improvement efforts, which are recommended for all high-quality OST programs (American Institutes for Research [AIR], 2015; Leschitz et al., 2022). Follow the quantitative assessment with semi-structured focus groups. These interviews provided 2-4-1 coaches with the opportunity to share their experiences and perspectives to illuminate the reasons behind the SEL PQA score improvement. The instructors' authentic experience provided additional insights and recommendations for the 2-4-1 CARE program.

## **Recommendations for Practice and Further Study**

This successful improvement-science-informed action research study helped improve the quality of 2-4-1 CARE's SEL practices from good to excellent. Inspired by these outcomes, the researcher developed methods to support 2-4-1 CARE's continuous improvement of sports-



related SEL and made recommendations for further research in the sports enrichment and physical activity OST fields.

### ***Recommendations for Practice***

Following a successful first continuous improvement cycle during this dissertation in practice study, the researcher recommends that 2-4-1 CARE share the results of the study with Plato and Socrates magnet school leaders and stakeholders. The Weikart Center designed the SEL PQA to promote constructive, collaborative conversations to celebrate strengths and identify ways to use observation-based data within continuous improvement plans. The 2-4-1 team and researcher enjoyed a positive experience evaluating the program and felt confident in the criteria in the scoring rubric.

As character education-themed schools invested in promoting and improving students' emotional safety and well-being, the lessons learned from this study can continue to leverage the value of 2-4-1's partnerships. The OST and SEL toolkits encourage collaborative partnerships that strengthen the OST's investment in their students throughout the school day (CASEL, 2021; Devaney & Moroney, 2015). For example, if 2-4-1 instructors participate in the student assistance team, they could help expand student support plans for students in 2-4-1 and recommend 2-4-1 CARE to families seeking to enhance their children's self-confidence, enjoyment of school, and overall well-being. Expanding the conversation about 2-4-1 CARE's high-quality practices to their host schools could also benefit the community regarding the benefits of physical activity regarding SEL competency development, as well as the potential to expand the reach of 2-4-1 during recess, physical education classes, and other sports programming (Dauenhauer et al., 2022; Kahn et al., 2019). 2-4-1 CARE should also share their

findings with the host district to celebrate the strength of their program and provide insights into the SEL PQA for a district-wide approach to all OST partners' SEL quality.

During both focus group interviews, 2-4-1 instructors provided suggestions for ways to train and support new instructors in other schools. For example, they recommended that 2-4-1 CARE directors highlight the importance of SEL within their sports enrichment program and provide specific SEL training, on-site modeling, and coaching support. Research supports these recommendations (Leschitz et al., 2023; Smith et al., 2016). The SEL PQA score report provides suggestions for training offered by the FYI. Given the brief cycle, there was not enough time to facilitate outside training. 2-4-1 CARE may consider participating in a module featuring specific evidence-based practices they wish to strengthen. When 2-4-1 CARE designs a continuous improvement timeline that includes all its current host schools, it may also find ways to incorporate physical literacy best practices.

### ***Recommendations for Practice in Other Sports and OST Programs***

2-4-1 CARE's high-quality SEL practices position the program to support youth sports colleagues and fellow OST providers in urban school districts. The successful SEL intervention and the 2-4-1 coaches' experience in improving emotion coaching and furthering learning practices hold the potential to train sports coaches, teachers who supervise recess, and physical educators interested in enhancing their curriculum. Their sports-friendly SEL, such as 2-4-1's TOP Self check-ins, mindfulness activities, and closing shout-out circles, can help answer the greater call to action through training and toolkits (Farrey & Issard, 2015). As a sports enrichment program focused on equity that enhances students' happiness, enjoyment of school, and connection to others, 2-4-1 CARE's equity-driven approach helps increase access to high-quality SEL and sports (Veliz, 2019; Daunhauer et al., 2022).

### *Recommendations for Future Study*

Additional similar studies should consider ways to introduce and implement the intervention. For example, action researchers should provide introductory training about high-quality SEL practices and the TOP Self curriculum prior to the start of the first session. Researchers should also include a look-for tool during the session to monitor and assess improvement. Following the pre-and post-assessment, researchers should consider probing specific examples of how the SEL intervention did or did not influence change. Providing a survey or requesting an external focus group facilitator are two ways to gather more specific feedback.

Future research should include an Improvement Science-informed approach linking the OST continuous improvement cycle to the school's action plan for the school climate. As indicated in the Systems View of School Climate, 2-4-1 CARE's high-quality SEL is a significant nanosystem within the school's microsystem (Rudasill et al., 2018). The study's positive results and evidence of 2-4-1 CARE's high-quality SEL practices and opportunities suggest that the OST has a high potential to help improve the school climate. Further studies could provide additional recommendations for OST programs to support districts to positively influence students' emotional well-being and connection to school (Kendziora & Yoder, 2016).

With the goal of improving the emotional safety, support, interaction, and engaging environment of youth sports, additional study is necessary to determine the impact of an SEL intervention on sports teams and training centers. The researcher recommends the SEL PQA for youth sports organizations seeking to promote athletes' well-being (Kahn et al., 2019).

## Conclusion

As a dissertation-in-practice guided by the Improvement Science framework and informed by the Systems View of School Climate, the researcher addressed a problem of practice rooted in a decline in emotional safety at two magnet school sites through a targeted intervention to improve the quality of SEL in a sports enrichment OST.

The results of the study showed that the intervention sparked the coaches' intentionality in implementing the SEL curriculum, which focused on self-awareness and self-regulation competencies. They indicated that by conducting an SEL intervention in the sports program, their investment in student SEL skill development improved. The study's results identified how 2-4-1 TOP Self's structures, such as check-in circles, TOP Self feelings emoji graphics, mindfulness activities, and closing shout-out circles, provided built-in ways to deliver emotion coaching and further learning practices. They identified specific ways in which students engaged in the PLP role grew as leaders and mentors. The coaches also noted the natural fit between sports and SEL.

The 2-4-1 TOP Self Sports OST program, featuring an SEL curriculum and high-quality SEL practices, helps students enjoy physical activity and develop SEL competencies, including self-awareness, self-regulation, and relationship skills. The researcher recommends future Improvement Science-guided research using the SEL PQA and job-embedded coaching to help all OST programs improve the quality of SEL practices. Using the Improvement Science framework will help educators gather and share valuable practice-based evidence using research-based strategies (Bryk et al., 2015). Through the continuous improvement of intentional high-quality SEL curricula and practices, grant-funded sports enrichment OST programs can benefit student well-being and school climate to optimize the impact of their partnerships.

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## Appendices

### Appendix A: About 2-4-1 CARE

2-4-1 CARE is a non-profit youth sports enrichment organization serving children ages 5-14. In 2006, 2-4-1 started as a one-week sports sampling camp hosted by co-founders Executive Director Steve Boyle and Chief Operating Officer Kerry Boyle after learning that if their 9-year-old daughter wanted to join a local soccer travel team, she must commit to playing one sport year-round. The tagline, *Life's 2 Short 4 Just 1 Sport*, resonated with many children and parents, and the model quickly expanded in scope and multiple locations in the United States. As parents, coaches, and educators, Steve and Kerry soon recognized the natural way their sports program promotes physical literacy and SEL. In 2017, 2-4-1 teamed up with the Aspen Institute initiative, Project Play. In 2021, 2-4-1 piloted the TOP Self SEL curriculum.

In addition to their flagship summer program, 2-4-1 partners with parks and recreation programs and school districts to offer 2-4-1 TOP Self Sports and other niche sports, including running and fencing for children ages 5-. 2-4-1 collaborates with like-minded organizations around the globe seeking to promote children's and youth's well-being, connection, and personal development. For more information, visit [241play.org](http://241play.org) or contact: [Steve@241play.org](mailto:Steve@241play.org).

## Appendix B: Intervention Action Plan

<p>FOCUS AREA SEL PQA Scale</p>	
<p>SMART GOAL</p>	<p>The quality of 2-4-1 TOP Self SEL practices and opportunities provided at Socrates and Plato Magnet Schools on the SEL PQA will increase by 20% or higher during the Fall Session 2023. Plato Socrates</p>
<p>How</p>	<p>Observable measurable, staff provided opportunities and practices</p>
<p>Curriculum-based plan</p>	<p>Most relevant areas of the 2-4-1 TOP Self Sessions for the practices and opportunities</p>
<p>Professional Learning</p>	<p>Training or follow up coaching</p>
<p>FOCUS AREA <b>Emotion Coaching</b> <i>Staff prompt young people to be aware of and constructively handle their emotions.</i></p>	
<p>SMART GOAL</p>	<p>The quality of Emotion Coaching practices and opportunities will improve based on the SEL PQA increase by 20% or more from 3.25 (pre) to 3.9 or higher (post). Socrates Magnet: 3 to 3.6 Plato Magnet: 4.3 (maintain or grow)</p>
<p>How</p>	<p>Staff will ask all young people to name their emotions during TOP Self check in each morning. During the TOP Self Circle and/or during shout-outs and when relevant during sports-related activities, staff will ask young people to discuss the causes and constructive handling of their emotions.</p>
<p>Curriculum-based plan</p>	<p>TOP Self Check-In: With or without emoji graphic TOP Self Circle:</p> <ul style="list-style-type: none"> <li>· Choose an emoji and ask students to share possible causes for the emotions</li> <li>· Share getting to Home Base activity as a constructive way to handle a challenging emotion</li> </ul>

Professional Learning: Communication and Coaching	The CPO will explain the approach in person and in a follow-up video presentation. The CPO or COO will provide coaching as needed during visits.
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<b>FOCUS AREA</b> <b>Furthering Learning</b> <i>Staff encourages all young people to deepen their learning.</i>	
SMART GOAL	The quality of Furthering Learning practices and opportunities based on the SEL PQA will increase 20% or more from 2.3 (Sept) to 2.76 or higher (Nov). Socrates Magnet: 2.6 to 3.052 Plato Magnet: 2 to 2.4
HOW	During TOP Self and/or shout-out circle, staff will use deepening learning practices by asking students to connect ideas and situations in sports and TOP Self strategies.
Curriculum-based plan	<p>TOP Self:  Ask for volunteers to share a time they managed a challenging emotion to get to Home Base  Asking for volunteers to share a recess story, including someone, organizing a game, etc.  Invite volunteers to share how they taught someone a TOP Self strategy (deep breathing, visualizing a safe space, pattern tapping, etc.</p> <p>Shout-out circle reminder:  Use your TOP Self strategies- in the classroom, recess, at home  Look for ways to invite someone to play with you, or play catch, pass, team handball, soccer, etc.</p>
Professional Learning: Communication and Coaching	CPO will explain in a video presentation. CPO or COO will provide coaching as needed during visits.
<b>FOCUS AREA</b> <b>Promoting Responsibility and Leadership</b> <i>Staff provides young people with opportunities to grow in responsibility and leadership.</i>	



SMART GOAL	The quality of Promoting Responsibility and Leadership practices and opportunities based on the SEL PQA will increase by 20% from 2.8 (Sept) to 3.36 or higher (Nov). Socrates: 2.2 to 2.64 Plato: 3.4 to 4.08
HOW	During gameplay, staff will provide all young people with opportunities to be responsible for independently carrying out assigned tasks. All PLPs will serve as mentors and leaders and have opportunities to share ideas.
Curriculum-based plan	Assigned tasks: Coaches will explain sport-specific positions and their function and emphasize the importance of each role as contributing to the team.  Mentors, Leaders, Ideas: Assistant coach will huddle with PLPs to review the plan for the day and assign specific roles and general responsibilities, e.g., handshake, high five, sharing encouragement, modeling sports skills. Ask for ideas that PLPs have.
Professional Learning	2-4-1 will train PLPs this week. Coaching visits

## Appendix C: Semi-structured Focus Group Interview Questions and Informed Consent

<p><b>Introduction</b></p> <p>Thank you for meeting to share your experiences and perceptions during the Fall session of 2-4-1 TOP Self in terms of SEL. You are encouraged to give your candid responses, and please know you may choose not to respond or provide additional related comments.</p>	
<b>Topic</b>	<b>Questions</b>
<b>General Reflection: Embedded SEL Practices</b>	1. Describe your experience delivering the embedded social-emotional learning (SEL) practices for 2-4-1 TOP Self during this fall session (e.g., greeting students by name, encouraging students to use a growth mindset, fostering teamwork).
<b>General Reflection: Explicit SEL</b>	2. Describe your experience teaching the TOP Self Lessons.
<b>Obstacles / Barriers</b>	3. Describe any challenges you faced while implementing SEL in the 2-4-1 TOP Self program.
<b>Ease of implementation</b>	4. Has your comfort in delivering SEL instruction (implicit and explicit) in 2-4-1 TOP Self changed? If your comfort improved, why do you think this occurred? If not, why not?
<b>Perception of effectiveness</b>	5. How did you perceive the impact of SEL-related instruction on student outcomes, such as social-emotional skills, behavior, and engagement?
<b>Next Steps</b>	6. What supports or resources would further enhance your ability to integrate SEL into 2-4-1's sports enrichment before-school program?  (Or, do you have suggestions for ways to do this when we start new programs?)

## Informed Consent

<b>Study title</b>	Leveraging the Value of a Grant-funded Partnership by Improving the Quality of SEL in a Sports Enrichment OST Program
<b>Researcher</b>	Julie Goldstein

I am inviting you to participate in a doctoral action research research study overseen by Sacred Heart University. Participation is completely voluntary. If you agree to participate now, you can always change your mind later. There are no negative consequences, whatever you decide.

*What is the purpose of this study?* This study aims to understand to what extent an intervention focused on Social Emotional Learning impacted the quality of SEL instruction in a sports enrichment program that includes an SEL component.

*What will I do?* If you choose to participate in this study, you will participate in a focus group with me during a mutually convenient 2-4-1 TOP Self™ designated work time. The interview will include open-ended questions about your experiences before, during, and after an intervention related to integrating SEL instruction during the 2-4-1 TOP Self™ Sessions. The questions will be about your perception of SEL in 2-4-1 and any factors that impacted your coaching. This will occur during the 2-4-1 TOP Self™ work time and is expected to take approximately 30 minutes. You may choose to skip any questions you prefer not to answer.

*What are the potential risks?* Participation in this study is not expected to present any risk. The anticipated benefit will improve the SEL curriculum and support for 2-4-1 and before and after-school instructors.

As a thank you, I will give you a five-dollar coffee card. If you prefer to refrain from participating, that is understandable and will not impact relationships with me, HPS, or the 2-4-1 staff. You may stop your participation at any time and withdraw from the study. There will be no negative feelings if you decide to do so.

*How will I be protected if I choose to participate?* You will be anonymous. All data will be kept on a password-protected computer in the researcher's locked office. No names or other information that could identify you or anyone else will be included in the transcribed interview.

I will provide you the opportunity to review a summary of your responses to ensure accuracy and assure you that no aspect of your response is identifiable to you. The transcription will be destroyed.

*Confidentiality and Data Security:* Your confidentiality will be protected to the full extent of the law. You will be assigned a study code number for the interview, which will be transcribed and free of any identifiers. The transcription and notes will be destroyed after the study.