In this study, we sought to develop a model to provide educators with training and resources to effectively support and guide social-emotional learning (SEL) in PK-12 online environments, which we refer to as o-SEL. We utilized five national sets of standards and competencies to guide the development of six online modules for educators to gain skills, knowledge, and resources to help students learn SEL-related skills. Qualitative methods and analysis were employed to examine our research question. We utilized design thinking as a strategy for developing o-SEL professional learning. Five SEL experts were identified and invited to participate in a brief survey to determine areas of focus and then we conducted two one-hour focus groups. The focus group discussion was transcribed, coded, and analyzed to determine emergent themes related to areas of SEL needs in online learning environments. Based on our findings, we identified six elements (i.e., Empower, Engage, Motivate, Include, Collaborate, Ex-
tend) for educators to foster inclusive o-SEL environments for PK-12 learners that we describe as the Collaborative Model for Teaching o-SEL. We discuss the positive impact that o-SEL instruction can have on student learning outcomes, while also designing inclusive and culturally relevant support structures. This study calls for further investigation regarding teacher application of the o-SEL model and impact of o-SEL on student learning.

INTRODUCTION

During the global pandemic due to COVID-19, PK-12 learners’ instruction often shifted from traditional face-to-face schooling to online or hybrid approaches to teaching and learning. More than 50 million K-12 public school students in the United States experienced learning through online activities in 2020 (Chandra et al., 2020). Online learning or hybrid approaches to education for PK-12 learners are on the rise in part because students and families choose the venue (Gross, 2021). For this reason, it is important for educators, leaders, and support staff to have proper support and professional learning to effectively teach all learners in online environments (Stein, 2022).

In addition to focusing on the academic needs of PK-12 learners, learners’ social-emotional and career and college readiness needs should be addressed in schools through culturally relevant, inclusive, equitable, and safe practices. As schools shift from physical classrooms to online spaces, it is important to understand how to create digital, online learning environments that provide social-emotional learning (SEL) that promotes effective communication, collaboration, critical thinking, and creativity (Walker, 2020). Educators may need professional learning related to developing and implementing online learning environments, especially with a focus on SEL (Brown, 2021). The purpose of this article is to: 1) describe the development of a model to create online SEL environments, and 2) explain the design and content of an online program to prepare educators to provide PK-12 students online SEL opportunities. Next, we provide an overview of the literature that focuses our inquiry pertaining to this online professional learning series (OPLS).
LITERATURE REVIEW

In this review of literature, we explore SEL, SEL in online environments, culturally responsive practices, and trauma-informed schools to better understand educators’ professional learning needs related to providing o-SEL to PK-12 learners.

Social-Emotional Learning

According to the Collaborative for Academic, Social, and Emotional Learning (CASEL; 2021a), social and emotional learning (SEL) is the process through which all young people and adults acquire and apply the knowledge, skills, and attitudes to develop healthy identities, manage emotions and achieve personal and collective goals, feel, and show empathy for others, establish, and maintain supportive relationships, and make responsible and caring decisions. (para 1)

CASEL (2021a) describes the importance of “educational equity and excellence through authentic school-family-community partnerships” (para 2), and SEL can help educators support and foster learning communities that are “safe, healthy, and just” (CASEL, 2021a, para 2). There are short- and long-term outcomes of SEL related to human development and education. Payton et al. (2008) explains that short-term outcomes include: acquisition of SEL skills; improved attitudes of oneself, others, learning, and schools; and enhanced learning environments that are supportive, engaging, and encourage participation. Payton et al. (2008) also outline long-term outcomes, which highlight positive social behavior, fewer conduct problems, less emotional distress, and improved academic performance.

The need for SEL in PK-12 education to support students’ academic and post-secondary readiness has increased due to the COVID-19 pandemic. According to recent studies, the pandemic has caused a decline in the emotional health of students, particularly students from communities that are traditionally marginalized (e.g., Bouffard, 2021; Katzman & Stanton, 2020). Students may feel more isolated due to the pandemic, which can lower motivation and make it more difficult to actively participate in learning (Katzmann & Stanton, 2020). As new surges and variants of COVID-19 continue to arise, school shut-downs and transitions to online instruction may become a regular part of PK-12 schooling. To help students feel better
emotionally and achieve academically, educators need to be able to include SEL instruction during online education.

Social-Emotional Learning in Online Learning Environments

While SEL in schools that are in-person is clearly defined by CASEL (2021c), it is less clear how PK-12 educators design online learning environments that teach and promote SEL (Liao et al., 2021). While standards such as the National Standards for Quality Online Learning (NSQOL) (Quality Matters, 2022) have guided higher education instruction in online learning environments, few PK-12 standards for online learning existed prior to 2020 (Adelstein & Barbour, 2017).

During the onset of the COVID-19 pandemic in 2020, organizations recognized PK-12 educators needed more guidance designing online learning environments (Quality Matters, 2022). Most schools did not offer, in mass, online access to instruction in PK-12 schools (Li & Lalani, 2020). In fact, most PK-12 educators had not been trained to teach in online learning environments because it was not a component of most teacher education programs (Choate et al., 2021). In addition to the lack of literature related to training educators to teach online, there are limited studies related to SEL in online learning environments. Over the past ten years, emerging research in online education has focused on teachers’ perceptions of instructor’s presence in online learning environments (Richardson et al., 2016); teacher preparation in virtual schools (Barbour, 2012); teacher education programs and online teaching (Kennedy & Archambault, 2012); and professional learning for K-12 teachers in virtual or face-to-face environments (McConnell et al., 2013). To facilitate o-SEL, educators need professional learning regarding content and ways to present SEL throughout online platforms. International Society for Technology in Education (ISTE; 2021) standards and revised K-12 online learning standards (i.e., NSQOL [Quality Matters, 2022]) are useful. However, ISTE educator standards are designed for educators to apply technology across their practice, regardless of context (i.e., online or in-person), which could be helpful for educators who transition between online and in-person instruction.

Overview of o-SEL Professional Learning

Online professional learning is on the rise, as the format is more flexible for educators to access beyond their workday (Liao et al., 2017; Pow-
ell & Bodur, 2019). To support this growing field, the Southern Regional Education Board (2009) created a document of guidelines for professional learning for online teachers with suggestions that successful online professional learning should include content, instructional design, student assessment, technology, and course evaluation. Furthermore, the board advocates for online professional learning that helps teachers understand student perspectives. According to recent research, online professional learning is most effective when it is relevant and readily transferable to the online classroom (Farris, 2015); offers opportunities for interaction and feedback (O’Hara et al., 2013); requires active learning on the part of participants (Dawson & Dana, 2014); allows space for teacher reflection (O’Hara et al., 2013); and includes videos as a tool for sharing information (Powell & Bodur, 2019).

In-person or o-SEL professional learning for PK-12 educators supports the creation of online learning environments that are caring, inclusive, and equitable (Summers, 2020). Professional learning opportunities that prepare educators to be equity leaders, use culturally responsive teaching, and understand emotional intelligence help to create effective o-SEL environments (Valenzuela, 2021). Additionally, effective SEL instructional approaches often include four elements that are represented by the acronym, SAFE (CASEL, 2021a). This acronym describes four approaches (i.e., Sequenced, Active, Focused, and Explicit [see Table 1] to provide SEL to all learners.

### Table 1
SAFE instructional approaches by CASEL

<table>
<thead>
<tr>
<th>SAFE words</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sequenced</td>
<td>Following a coordinated set of training approaches to foster the development of competencies</td>
</tr>
<tr>
<td>Active</td>
<td>Emphasizing active forms of learning to help students practice and master new skills</td>
</tr>
<tr>
<td>Focused</td>
<td>Implementing curriculum that intentionally emphasizes the development of SEL competencies</td>
</tr>
<tr>
<td>Explicit</td>
<td>Defining and targeting specific skills, attitudes, and knowledge</td>
</tr>
</tbody>
</table>

*Note. Information in Table 1 retrieved from Fundamentals of SEL, by Collaborative for Academic, Social, and Emotional Learning (CASEL), 2021a, (https://casel.org/fundamentals-of-sel/).*
Overview of SEL, Culturally Responsive Practices, and Trauma-Informed Schools

As SEL instruction in schools has received increased attention, more scholars have focused on the importance of integrating culturally responsive practices and trauma-informed practices into SEL (e.g., Ferrell & Crosby-Cooper, 2020). Culturally relevant pedagogy (Ladson-Billings, 1995, 2014) centers on the idea that the way students learn and experience the world is impacted by their cultural backgrounds and identities. The theory argues that educators must know and respect their students’ cultural identities and use that information to create learning experiences that are meaningful. Trauma-informed practices (Cavanaugh, 2016; Dorado et al., 2016) have arisen out of the understanding that many children experience trauma, and that trauma has an impact on their ability to learn. Educators and schools need to offer interventions to help students with their trauma to promote successful educational outcomes.

One argument for the necessity of combining culturally responsive practices with SEL is that ignoring students’ background cultures may lead to conflict for students. Ferrell and Crosby-Cooper (2020) explain that “without considering the intersection of social-emotional functioning and cultural background and life experiences, stakeholders run the risk of reinforcing stereotypes, creating an adverse classroom climate, and defining cultural differences as maladaptive” (p. 143). Scholars also share what is an appropriate display of emotions or an understanding of what constitutes the “self” can vary depending on cultural background (e.g., Barnes & Mccalllops, 2019; Hecht & Shin, 2015). Therefore, without adaptation to culture, SEL instruction can become harmful, and studies have indicated that the most effective SEL programs are those that incorporate cultural responsiveness (e.g., Jones et al., 2018).

Linking SEL instruction with trauma-informed practices is a natural fit, as there are many overlaps between the two areas. Pawlo et al. (2019) claim, the basic tenets of SEL overlap with the principles of trauma-informed instruction. Where they have differed are on questions of intensity — both the intensity of the stress children are experiencing and the intensity of the instruction required to help them. (p. 38)

Scholars further argue that many learners experience trauma, and SEL instruction should include trauma-informed practices (e.g., Harrigan & Jab-ouin-Monnay, 2021; Pawlo et al., 2019). Blitz et al. (2016) takes this further
by arguing that trauma can also be related to culture, and therefore SEL instruction needs to incorporate both cultural responsiveness and trauma responsiveness, which is a key focus within our conceptual framework and o-SEL professional learning series.

**CONCEPTUAL FRAMEWORK**

Due to the lack of research and information to promote o-SEL for PK-12 schools, we drew on the available literature and national professional standards across various organizations to create a conceptual framework that highlights competencies, knowledge, and skills needed to teach SEL online to PK-12 learners (see Figure 1). This framework is comprised from five nationally-recognized associations’ competencies and standards: 1) Collaborative for Academic, Social, and Emotional Learning (CASEL; 2021c); 2) American School Counselor Association (ASCA; 2014) Mindsets & Behaviors; 3) University of California San Francisco (UCSF; 2021a) Healthy Environments and Response to Trauma-Informed Systems (HEARTS) Trauma-Informed Principles for Promoting School and Community Success; 4) Learning for Justice (formally known as Teaching Tolerance, 2018) Social Justice Standards; and 5) International Society for Technology in Education (2021) Standards for Educators.

![Figure 1. o-SEL conceptual framework.](image-url)
Drawing on these standards and literature review, we define o-SEL as online teaching and learning that provides PK-12 learners and educators social-emotional learning opportunities to develop understandings of emotions and ways to address emotions, support oneself and others, take initiatives, build connections, foster equitable relationships, and positively engage with others. SEL, trauma-informed schools, and culturally relevant practices are central to designing inclusive and equitable o-SEL opportunities. In the following sections we describe the standards that frame this study.

Collaborative for Academic, Social, and Emotional Learning (CASEL)

CASEL was established in 1994 to implement “high-quality, evidence-based” SEL throughout PK-12 education programs (CASEL, 2021b, para. 10). CASEL aims to provide equitable resources and guidance to schools to teach the whole child and to provide tools for students to achieve learning objectives throughout their educational experience and adulthood (CASEL, 2021a, 2021c). CASEL’s SEL standards promotes knowledge, skills, and attitudes via five competencies, which include: 1) self-awareness (understanding one’s own emotions, thoughts, and values and how they influence behavior across contexts); 2) self-management (managing one’s emotions, thoughts, and behaviors effectively in different situations and to achieve goals and aspirations); 3) social awareness (understanding the perspectives of and empathize with others, including those from diverse backgrounds, cultures, and contexts); 4) relationship skills (establishing and maintaining healthy and supportive relationships and to effectively navigate settings with diverse individuals and groups); and 5) responsible decision-making (making caring and constructive choices about personal behavior and social interactions) (CASEL, 2021c).

American School Counselor Association (ASCA)

Founded in 1952, ASCA is a national organization with a focus to “lead, advocate and collaborate to promote equity and success for all students by connecting the school counseling program to the school’s academic mission and school improvement plan” (ASCA, 2021b, para 1). ASCA emphasizes the importance of collaboration and communication to meet all PK-12 students’ needs and provides a framework to guide student success. ASCA Mindsets & Behaviors for Student Success: K-12 College- and Ca-
**Healthy Environments and Response to Trauma in Schools (HEARTS)**

The HEARTS program was founded in 2008 and piloted in the San Francisco Unified School District. The founders drew from literature in the field, as well as pieces from existing programs, to create the HEARTS program and multi-tiered system of support to provide school-wide, systemic interventions “to address trauma and chronic stress at the student level, staff level, and school organizational level” (UCSF, 2021c, para 2).

The HEARTS standards focus on school success and collaboration “to create more trauma-informed, safe, supportive, and equitable school cultures and climates that foster resilience, wellness, and racial justice for everyone in the school community” (UCSF, 2021b, para 1). The six core principles included in the HEARTS standards include: Understanding Trauma & Stress, Cultural Humanity & Equity, Safety & Predictability, Compassion & Dependability, Empowerment & Collaboration, and Resilience & Social Emotional Learning (UCSF, 2021a).

**Learning for Justice**

Learning for Justice (formerly known as Teaching Tolerance) was created in 1991 by the Southern Poverty Law Center (2021) to “prevent the growth of hate by reducing prejudice” (para 3). Learning for Justice provides free resources to help K-12 educators advance the cause of human rights in their classrooms. To outline how social justice may be taught in schools, Learning for Justice outlines Social Justice Standards to promote K-12 anti-bias education. The standards are included in four domains: identity, diversity, justice, and action (IDJA). Based on Louise Derman-Sparks’ four anti-bias education goals, these domains allow “educators to engage in a range of anti-bias, multicultural and social justice issues” (Teaching Tolerance, 2018, p. 4).
International Society for Technology in Education (ISTE)

ISTE was initially founded as The International Council for Computers in Education in 1979, with the purpose to provide guidance on how to use educational technology. In 1998, ISTE released standards for students and how they should use technology, formally known as National Education Technology Standards. Since then, ISTE has expanded standards to educators, educator leaders, coaches, and computer science educators.

ISTE (2021) provides Standards for Educators to guide educators as they serve as an “Empowered Professional” in seven categories of standards. According to ISTE (2021), these standards are “the road map to helping students become empowered learners” (para 1). We chose to refer to ISTE standards due to in-service and pre-service PK-12 educators’ existing familiarity with the standards and the direct application to PK-12 learning environments whether teaching online or in-person. We purposefully selected ISTE educator standards that promote collaboration with peers, challenge educators to rethink traditional pedagogical approaches, and prepare educators to create online learning environments where their students can drive their own learning. In the next section, we describe our methods to answer our question, “How might we design an online program to prepare educators to develop and foster online social-emotional learning opportunities for PK-12 learners?”

METHODS

This qualitative study employs design thinking. According to Brown (2009), design thinking is a set of creative principles employed to explore solutions to identified problems or to address a challenge in innovative ways. Design thinking explores problems through the lens of five phases: Empathize, Define, Ideate, Prototype, and Test (Stanford University, 2010). In this study, we identify a complex problem facing PK-12 education, which is preparing and training educators to meet the needs of learners in various environments, including online spaces. We describe the design thinking phases of this study in Table 2. Next, we describe the context, the design team, and the data sources and collection process.
Table 2
Design thinking phases for designing o-SEL

<table>
<thead>
<tr>
<th>Design thinking phases</th>
<th>Steps for each phase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Empathy</td>
<td>First, we asked practitioners currently practicing in the field what challenges they faced when teaching online when it was pertaining to SEL.</td>
</tr>
<tr>
<td>Define</td>
<td>Then, we then defined six areas to address and identified six problems educators may be encountering.</td>
</tr>
<tr>
<td>Ideate</td>
<td>Next, we brainstormed ideas of how to address educators’ problems and determined possible solutions based on feedback and comments from our SEL experts. These solutions were provided in each module (i.e., content and resources).</td>
</tr>
<tr>
<td>Prototype</td>
<td>Fourth, we developed each module and sent it to practitioners to review. The modules were reviewed by peers as well as other experts in the field to ensure the modules provide material that is helpful and relevant to the field.</td>
</tr>
<tr>
<td>Test</td>
<td>Finally, we published the online modules in the OPLS.</td>
</tr>
</tbody>
</table>

Design Team and Context

This research is in response to an opportunity to contribute to a larger pilot online professional learning series (OPLS). o-SEL is one series of OPLS, which includes other series pertaining to remote teaching, STEM education in online learning environments, and literacy topics in online environments. The development of this series was funded by the Governor’s Emergency Education Relief (GEER) grant aimed to provide support and training for educators, teacher educators, and teacher candidates. The OPLS is hosted via one Midwestern university. To design and create this series, we (three university faculty) needed support of website developers, graphic designers, and interactive designers. We hired graduate students and faculty from Digital Corps and Emerging Media Design and Development (EMDD) to be our developers and designers. In addition, our team included the three of us as a content designer, evaluator, and project manager as well as two additional, senior-level educators who provided additional content for the modules. We met with the EMDD director and graduate students weekly to review content and to make decisions about layout, format, graphics, interactives, animations, and videos.
Experts and leaders in SEL were needed to learn more about the challenges of SEL in online environments. We also wanted to include the voices and recommendations from practitioners in the field who felt comfortable and confident in their abilities to teach SEL concepts in online environments. We recruited PK-12 practitioners to fill five positions as SEL experts (i.e., practicing administrators, school counselors, and classroom teachers). According to the director of EMDD, five falls in the middle of the recommended number of persons for effective design thinking sessions (Yahyaoui, 2020). To identify experts, we contacted the dean’s office of our college, asked educators and principals, and asked each other who we knew in our network. Biographies of the SEL experts are highlighted in Table 3.

**Table 3**
SEL experts’ grade level, title, and experience

<table>
<thead>
<tr>
<th>Title</th>
<th>Grade-level</th>
<th>Professional position</th>
<th>Experience</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expert #1</td>
<td>Primary Grades</td>
<td>SEL coach &amp; educational consultant</td>
<td>Expert #1, an educator for over 13 years, is a SEL coach and supports eight elementary schools. She models SEL in classrooms for teachers, co-teaches, works with large and small groups of students, and provides instructional coaching for staff and families grounded in Educational Neuroscience research. She consults with community organizations to align SEL competencies with their goals and mission, and has created a comprehensive approach for family engagement in SEL.</td>
</tr>
<tr>
<td>Expert #2</td>
<td>Secondary Grades</td>
<td>Secondary English teacher &amp; author</td>
<td>Expert #2, a secondary English teacher with 15 years of experience, is the author of a book about teacher trauma. She participates in education and mental health-focused podcasts and radio programs. Her professional passions include relationship building among teachers and students, caring for the mental health of teachers, and helping teachers to harness their own courage and vulnerability in the classroom to best serve students and to care for teachers’ own SEL needs.</td>
</tr>
<tr>
<td>Title</td>
<td>Grade-level</td>
<td>Professional position</td>
<td>Experience</td>
</tr>
<tr>
<td>-------</td>
<td>-------------</td>
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<td>------------</td>
</tr>
<tr>
<td>Expert #3</td>
<td>All Grades</td>
<td>Strategic learning coordinator</td>
<td>Expert #3 is the strategic learning coordinator for a school district in the Midwest. He manages the popular state-based education Twitter chat. He is a Google Certified Innovator, Google Trainer, and Apple Certified Teacher. He provided keynotes at several eLearning conferences for the state department of education, writes innovative STEM curriculum for education programs, and consults with districts across the country in educational technology.</td>
</tr>
<tr>
<td>Expert #4</td>
<td>Primary Grades</td>
<td>School counselor</td>
<td>Expert #4 has over 30 years of experience in education. For the past 15 years, she has been a school counselor at an elementary school. As a SEL enthusiast, her areas of interest include mindfulness, executive functioning, emotional intelligence, educational neuroscience, and social thinking. When COVID-19 closed her school last spring, she began teaching SEL lessons from her home. Her videos were featured on a national radio program.</td>
</tr>
<tr>
<td>Expert #5</td>
<td>Primary Grades</td>
<td>Elementary school principal</td>
<td>Expert #5 has over 20 years of experience as an educator and is currently the principal at an elementary school. As a principal since 2016, she works with her school staff on SEL activities. She has also been an assistant principal, instructional support teacher, and kindergarten teacher. She holds graduate degrees in educational administration and an undergraduate degree in elementary education child and family studies.</td>
</tr>
</tbody>
</table>

Experts who agreed to participate also received a small stipend for their time. As part of their role, and upon invitation to participate in the design of this series, we explained they would be asked to take one informal survey, join two one-hour brainstorming sessions (i.e. focus groups), and review the series when completed. The two sessions focused on brainstorming solutions to identified SEL challenges we gathered from the informal surveys upon their acceptance to participate. To gather their ideas, we asked them to (a) empathize with teachers’ needs to create o-SEL environments, and (b) ideate solutions to the identified problems from the surveys. Upon completion of the two brainstorming sessions, the rest of the design team worked
together to (c) create prototypes (e.g., module drafts of the o-SEL series), and (d) test the modules via feedback from the experts upon the completed design of the o-SEL series. Once the testing and revisions were complete, the o-SEL series was released for open enrollment throughout the state and nation.

**Data Sources and Collection**

We employed design thinking as a process to collect data from three sources: an informal survey via Qualtrics, focus groups via Zoom, and online collaboration boards via Google Jamboards with the SEL experts. The one-hour design thinking sessions (i.e., focus groups) took place two times over two weeks. The EMDD team created one Qualtrics survey with open-ended/qualitative responses and one protocol for the focus groups with the SEL experts. The survey was distributed two weeks prior to the focus groups, and the EMDD team used the responses to guide the development of the focus group prompts. The EMDD team led the focus groups via Zoom. Questions posed during the focus groups included: 1) How might we teach and assess students’ critical thinking online?, 2) How might we teach students to take the initiative online?, 3) How might we teach students to manage their emotions online?, 4) How might we teach students in online environments to show empathy and develop positive, collaborative relationships?, 5) How might we teach students to have a growth mindset and identify their assets online?, and 6) How might we support schools to engage in inclusive family and community partnerships online?

During the focus groups, our team utilized Google Jamboards to brainstorm, present, and rank ideas and solutions to better address areas of SEL in online learning environments. Information in the Jamboards was saved for additional review and both focus groups were recorded and transcribed via Otter.ai to inform the design of each module. These data were organized in a Microsoft Excel worksheet for analysis.

**Data Analysis**

Qualitative data analysis methods were utilized to identify emergent themes and areas of focus in the design of the o-SEL professional learning series. Open-ended survey responses, response data from Jamboards, and transcripts were first reviewed and scrubbed by the EMDD team. Then, we
utilized the data shared from the EMDD team to develop a codebook to organize our findings from the three sources.

We grounded our study in a conceptual framework drawn from five professional organizations’ standards, which inform teaching SEL and designing online learning environments (see Figure 1). Through open coding and axial coding, seven education-focused areas related to creating an o-SEL environment emerged: assessment, classroom routines, extended learning, learning environment, online resources, partnership development, and various areas of teaching (e.g., collaboration, metacognition, self-awareness, self-regulation). Examples of these area codes are included in Table 4.

### Table 4

<table>
<thead>
<tr>
<th>Code/Area</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assessment</td>
<td>“Open-ended, broad questions with multiple ‘acceptable’ answers that encourage creativity and ask for a demonstration of thought allow for assessment of critical thinking.”</td>
</tr>
<tr>
<td>Classroom routines</td>
<td>“Include SEL core signature practices in the classroom (e.g., welcoming ritual, engaging activities, and optimistic closure).”</td>
</tr>
<tr>
<td>Extended learning</td>
<td>“Hold family engagement events that are barrier-reducing and culturally relevant.”</td>
</tr>
<tr>
<td>Learning environment</td>
<td>“Develop an emotionally safe space where feedback is welcomed, and growth mindset is used to make the group better.”</td>
</tr>
<tr>
<td>Online resources</td>
<td>“Find ways to increase authentic student-to-teacher and student-to-student interactions. If interaction is just student-to-content, student initiative will lack.”</td>
</tr>
<tr>
<td>Partnership development</td>
<td>“Recognize shared ownership of how we reach families and who is reaching out.”</td>
</tr>
<tr>
<td>Various areas of teaching</td>
<td>“SEL is critical to not only teach/learn, but to take it a step further to have our students apply, grow, and evolve.”</td>
</tr>
</tbody>
</table>

As we continued with our analysis, six themes emerged related to educators and learners identifying assets, promoting critical thinking, taking initiative, managing emotions, developing relationships, and building partnerships (see Table 5).
### Table 5
Themes, elements, and examples from focus groups

<table>
<thead>
<tr>
<th>Theme</th>
<th>Element</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identifying assets</td>
<td>Empower</td>
<td>“I think you have to be really, really intentional about coming up with ways to get to know the students because when you interact with students, you know you can create environments where their strengths and their assets will have the chance to shine.”</td>
</tr>
<tr>
<td>Promoting critical thinking</td>
<td>Engage</td>
<td>“But like inside that breakout room, or if you come back together as a large group, is there a student or a group of students who can play devil’s advocate and ask the other question, you know, like, what is the side of this issue? How can we come back to this from another angle? How can we explore it from another side?”</td>
</tr>
<tr>
<td>Taking initiative</td>
<td>Motivate</td>
<td>“Kids need to feel like they can take risks, and they can ask questions, and they can inquire, and they can really explore with each other without feeling judgment or making a mistake and things like that.”</td>
</tr>
<tr>
<td>Managing emotions</td>
<td>Include</td>
<td>“Those students are doing those things because they need and want that face-to-face connection. . . . So, having avenues where students can do that in a safe way is important and I put some examples of like flip grid and video discussion boards, but you know doing that synchronously is maybe sometimes more challenging than asynchronously.”</td>
</tr>
<tr>
<td>Developing relationships</td>
<td>Collaborate</td>
<td>“When you see another student maybe showing empathy toward another different student, you know saying, ‘Hey, this is what I’m looking for, right? This is the relationship building that I’m asking for in a regular classroom, and so this is how it would translate to what we’re doing on the screen.’”</td>
</tr>
<tr>
<td>Building partnerships</td>
<td>Extend</td>
<td>“I also have online modules that families can do together. They’re very light-hearted and fun, but they’re all based around SEL skills and then families can earn incentives, if they do the modules. The incentives that they can earn are very enticing incentives, so it can be a gas gift card or grocery gift card or restaurant gift card and so that supports local businesses and the economy.”</td>
</tr>
</tbody>
</table>

We aligned each of the themes with standards from the aforementioned framework and identified six elements/action verbs (i.e., Empower, Engage, Motivate, Include, Collaborate, and Extend), which focused the creation of the modules with these themes and elements in mind. These themes led to the development of the **Collaborative Model for Teaching o-SEL** for the OPLS, which is described in the following section.
Collaborative Model for Teaching o-SEL

Based on our research, we developed a model for designing a SAFE (see Table 1) online learning environment while engaging educators and learners in o-SEL environments. We created the “Collaborative Model for Teaching o-SEL,” which includes six elements to designing effective o-SEL environments (see Figure 2). These elements were used to develop six online modules in the o-SEL professional learning series. The purpose of these modules is to increase educators’ confidence levels in creating, facilitating, and sustaining o-SEL that embraces social-emotional teaching regardless of where educators are teaching.

Figure 2. Collaborative model for teaching o-SEL.

We acknowledge that a significant challenge educators face when teaching online is inequities in their students’ technology access (Catalano et al., 2021; Hassan & Daniel, 2020; Stelitano et al., 2020). Some students lack devices needed for certain types of online instruction, some students lack access to the internet, and, for other students, it is a mixture of both. We were mindful of these situations as we worked to create the o-SEL professional learning series.
Within our o-SEL modules, we suggest a variety of online tools, as well as other methods for getting resources to students and their families. In the modules, we provide educators with information about various communication tools and links to articles that discuss best practices in working with families and community members who have limited access to technology resources. We also recognize that consistent access to online tools, resources, and the internet is a problem without a simple solution. Thus, some of the content in our o-SEL professional learning series may need to be modified to better fit different contexts. However, much of our content discusses ways to incorporate o-SEL instruction into daily activities. Educators should adjust the content to fit into the online modes they find are most helpful in reaching their students.

Each module starts with asking educators to begin by empathizing with their learners as they identify the challenges related to the focus of the module. After viewing the content, educators are asked to brainstorm solutions to their specific challenges, drawing on the module’s content and then share their drafted solutions with other educators. Table 6 includes o-SEL module definitions, instructional approaches, online tools, and learning implications. This table will be referred to as we provide an overview of the details and content provided across each of the six modules. See Table 7 to decipher the acronyms used in the following sub-sections.

### Table 6

<table>
<thead>
<tr>
<th>Framework elements</th>
<th>Definition</th>
<th>Suggested instructional approach</th>
<th>Examples of online tools</th>
<th>Possible implications for PK-12 student learning</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Empower</strong></td>
<td>Empowering o-SEL environment: Develop asset-based approaches in o-SEL</td>
<td>CAST’s (2021) Universal Design for Learning</td>
<td>Calm app, Flipgrid, Google Meet, Padlet, Prezi, Think Up</td>
<td>As o-SEL instructional practices are focused on individual and collective assets, learners can embrace differences, recognize similarities, and empathize with and support others throughout their school and community.</td>
</tr>
<tr>
<td>Framework elements</td>
<td>Definition</td>
<td>Suggested instructional approach</td>
<td>Examples of online tools</td>
<td>Possible implications for PK-12 student learning</td>
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<tr>
<td><strong>Engage</strong></td>
<td>Engaging o-SEL environment: Provide critical thinking opportunities through o-SEL</td>
<td>Promote educators’ and learners’ critical thinking skills through organizing information, defining, and solving problems, reasoning with emotions and feelings about beliefs and actions, and forming strong arguments</td>
<td>Zaretta Hammond’s (2015) “Ignite, Chunk, Chew, Review”</td>
<td>edPuzzle, Google Slides, Jamboard, Loom, Thinglink, Web conferencing tools</td>
</tr>
<tr>
<td><strong>Motivate</strong></td>
<td>Motivating o-SEL environment: Develop ways to gain self-awareness and take initiative through o-SEL</td>
<td>Work within the community to build an understanding of individual emotions and the emotions of others and how to navigate them, as well as how to set goals and work toward meeting them</td>
<td>Restorative Justice practices: SMART goals (Specific, Measured, Agreed-upon, Relevant, Time-bound)</td>
<td>Flipgrid, Google Docs Kidblog, Jamboard, Padlet, Seesaw, Zoom</td>
</tr>
<tr>
<td><strong>Include</strong></td>
<td>Inclusive o-SEL environment: Build connections and show empathy through o-SEL</td>
<td>Foster opportunities for educators and learners to build relationships and show empathy with peers, caregivers, families, educators, and community partners through social awareness</td>
<td>Multi-Tiered System of Supports (MTSS; American Institutes for Research, 2021)</td>
<td>Flipgrid, Loom, Nearpod, Web conferencing, Zoom</td>
</tr>
<tr>
<td>Framework elements</td>
<td>Definition</td>
<td>Suggested instructional approach</td>
<td>Examples of online tools</td>
<td>Possible implications for PK-12 student learning</td>
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<tr>
<td><strong>Collaborate</strong></td>
<td>Collaborative o-SEL environment: Foster positive relationships through o-SEL</td>
<td>Empathize with educators, learners, peers, families, and community partners to facilitate collaboration through the practices of culturally responsive pedagogy</td>
<td>Substitution, Augmentation, Modification, and Redefinition Model (SAMR) (Puente)</td>
<td>Coggle.it, Flipgrid, Jamboard, Nearpod, Zoom</td>
</tr>
<tr>
<td><strong>Extend</strong></td>
<td>Extended o-SEL environment: Engage school, family, and community partners through o-SEL</td>
<td>Engage with families, caregivers, community partners, and school communities to better support o-SEL learning that learners apply in and out of school</td>
<td>Community Responsive Education (2020) Pedagogy</td>
<td>Audacity, Flipgrid, GroupMe, Learning Management Systems, Loom, Seesaw, YouTube</td>
</tr>
</tbody>
</table>

### Table 7
Acronyms used in o-SEL modules

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACEs</td>
<td>adverse childhood experiences</td>
</tr>
<tr>
<td>ASCA</td>
<td>American School Counselor Association</td>
</tr>
<tr>
<td>CASEL</td>
<td>Collaborative for Academic, Social, and Emotional Learning</td>
</tr>
<tr>
<td>HEARTS</td>
<td>Healthy Environments and Response to Trauma in Schools</td>
</tr>
<tr>
<td>IDJA</td>
<td>identity, diversity, justice, and action</td>
</tr>
<tr>
<td>ISTE</td>
<td>International Society for Technology in Education</td>
</tr>
<tr>
<td>MTSS</td>
<td>multi-tiered system of supports</td>
</tr>
<tr>
<td>o-SEL</td>
<td>online social-emotional learning</td>
</tr>
<tr>
<td>SAFE</td>
<td>sequenced, active, focused, explicit</td>
</tr>
<tr>
<td>SEL</td>
<td>social-emotional learning</td>
</tr>
<tr>
<td>TT</td>
<td>Teaching Tolerance</td>
</tr>
</tbody>
</table>
Empower- Empowering o-SEL environment: Develop asset-based instructional approaches in o-SEL

In the Empower module, we define asset-based teaching and instructional approaches in the context of o-SEL environments (see Table 6). Within this module, we share Universal Design for Learning as a framework that focuses on engagement, representation, action, and expression (CAST, 2021). According to CAST (2021), the Universal Design for Learning is “a framework to improve and optimize teaching and learning for all people based on scientific insights into how humans learn” (para 1). Additionally, CAST provides resources that can be used across PK-12 education to foster o-SEL.

Educators learn to empower learners to develop goals to work towards and support one another through asset-based instructional approaches. ISTE (2021) Standard 2a includes that “Educator’s shape, advance and accelerate a shared vision for empowered learning with technology by engaging with education stakeholders,” and this standard is a focus throughout the module.

Engage- Engaging o-SEL environment: Provide critical thinking opportunities through o-SEL

In the Engage module, we define critical thinking in the context of o-SEL (see Table 6). We provide a pedagogical framework and resources that can be used across PK-12 to foster critical thinking in o-SEL while also practicing culturally responsive pedagogy. We introduce “Ignite, Chunk, Chew, Review” (Hammond, 2015) as the teaching approach for this module, which situates PK-12 learners to reflect upon their thinking and build on their schema, as well as draw on their reasoning and practice decision-making. This process engages learners in the online experience and critical thinking. Hammond’s (2015) approach is based in culturally responsive pedagogy, and that is an important consideration for us to support all students.

We provide suggestions to establish an online classroom routine that focuses on critical thinking as a skill to be practiced on a regular day-to-day basis. Broadly speaking, educators can offer a welcoming ritual (e.g., virtual morning meetings), which may engage students in critical thinking activities (e.g., circles of possibility), and a closing ritual (e.g., optimistic closure). Additionally, we describe a culturally responsive technique, restorative circles, for establishing critical thinking processes when addressing problems in online learning environments.
Through resources within this module, educators may address ASCA’s (2014) standard (B-LS 1) more effectively to engage their students to “demonstrate critical-thinking skills to make informed decisions” while learning online. ISTE’s (2021) Standard 6 states, “Educators will facilitate learning with technology to support student achievement.” By designing engaging o-SEL environments via critical thinking, educators support PK-12 learning and achievement opportunities.

**Motivate- Motivating o-SEL environment: Develop ways to gain self-awareness and take initiative through o-SEL**

In the *Motivate* module, we define this section as a means for learners to understand and manage their response to emotions and take initiative (see Table 6). CASEL (2021c) competencies related to this module include “managing one’s emotions,” “using stress management strategies,” and “using planning and organizational skills.” Within the module, we framed our instruction around restorative justice practices (e.g., community circles, reflection, focus on relationships), and how to engage in these practices with learners in online environments (see Table 6).

By applying restorative justice practices to infuse o-SEL throughout the day, learners will experience SEL practices as being relevant to all parts of their education, rather than SEL as a dedicated class that is unrelated to daily life. Learners will have supported practice at self-management throughout the day. Additionally, restorative justice practices should honor the different cultural backgrounds of learners, which will allow learners from all backgrounds access to success in self-management and goal setting in motivating o-SEL environments.

**Include- Inclusive o-SEL environment: Build connections and show empathy through o-SEL**

In the *Include* module, we define ways of building connections and showing empathy through teaching and learning in the context of o-SEL environments (see Table 6). We share a pedagogical framework that includes academic mindsets (e.g., belonging, growth mindset, self-efficacy, and relevance) and can be utilized in PK-12 education to encourage inclusive o-SEL environments. One strategy for developing inclusive o-SEL environments that meets all students’ needs includes utilizing a multi-tiered system
of supports (MTSS). MTSS is “a proactive and preventative framework that integrates data and instruction to maximize student achievement and support students’ social, emotional, and behavior needs from a strengths-based perspective” (American Institutes for Research, 2021, para 1).

In this module, educators are challenged to consider how collaborative pedagogy can provide inclusive o-SEL environments for learners through building connections and showing empathy. Learners and educators should be able to use culturally responsive methods to help others, display acceptable behavior in online environments, and share kind, caring, and compassionate forms of expressions to oneself, peers, educators, learners, families, and community partners. Through content in this module, learners should become more socially aware and recognize and celebrate the cultural diversity in the classrooms.

Collaborate- Collaborative o-SEL environment: Foster positive relationships through o-SEL

In the Collaborate module, we define collaboration (see Table 6) and explore a model that can help design an effective, engaging, and collaborative o-SEL environments. The Substitution, Augmentation, Modification, and Redefinition Model (SAMR) model (Puente, 2013) can guide the design of creating a collaborative online learning environment. Educators explore resources that can be used across PK-12 curricula to facilitate collaboration through the practice of culturally responsive pedagogy and the application of restorative practices.

To design this module, we asked our SEL experts how to cultivate collaboration in online learning environments. Their suggestions guided our search for relevant references and digital tools. Within this module, we introduce the SAMR model to help educators design an o-SEL environment that embeds collaborative methods, such as online community circles, as methods for building positive relationships. We provide examples of digital media applications, platforms, and sites as suggestions to create an online space to engage in these practices (see Table 6).
Extend- Extended o-SEL environment: Engage school, family, and community partners through o-SEL

In the Extend module, we focus on ways to engage families and community partners within SEL teaching and learning at school (see Table 6). The CASEL competencies emphasize the importance of including families and community partners in SEL teaching and learning. Forming these school-family-community partnerships can be challenging when the culture of the school or the educators in it is different than the culture of the families and community (Antunez, 2000).

We offer suggestions for communicating with families and giving them opportunities to collaborate on o-SEL learning. Additionally, we provide ways that community partners can contribute to o-SEL instruction. Because of difficulties some schools have with communicating with families and community partners online, we provide a table of a variety of digital platforms that can be used for effective communication with families and community partners (see Table 6). The need to effectively communicate with the community is reflected in the ISTE standards for educators, as well as the CASEL competencies. Connecting o-SEL instruction to students’ lives outside of school may strengthen the students’ abilities to see how SEL skills can be used in their lives both inside and outside of school.

Interconnecting Frameworks, Standards, and Competencies for the o-SEL model

The Collaborative Model for Teaching o-SEL includes ISTE standards with the aim to integrate SEL via educational technology and the internet (i.e., online). We wanted to ensure this model was distinguishable from traditional SEL models. As we designed the modules, we also chose ISTE standards that align with revised NSQOL standards (e.g., see Table 8).
Additionally, we identified interconnections of standards and competencies from ISTE, CASEL, ASCA, HEARTS, and Learning for Justice to develop a robust o-SEL framework focused on educator online professional learning to better support all PK-12 learners. An example of how these standards and competencies interconnect in relation to one identified o-SEL area of focus is shared in Table 9.

Table 8
Example of alignment of an o-SEL module with ISTE & NSQOL standards

<table>
<thead>
<tr>
<th>o-SEL module</th>
<th>Example of NSQOL standard (Quality Matters, 2022)</th>
<th>Example of ISTE standard (ISTE, 2021)</th>
<th>o-SEL classroom routine examples</th>
<th>Online tools</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engage</td>
<td>B3. The online teacher uses different types of tools to interact in online courses to nurture learner relationships, encourage learner interaction, and monitor and motivate learner engagement. C4. The online teacher promotes learner-learner interaction in online groups to foster collaboration and promote higher-order thinking skills such as analysis, synthesis, and/or evaluation.</td>
<td>5b. Design authentic learning activities that align with content area standards and use digital tools and resources to maximize active, deep learning. 5c. Explore and apply instructional design principles to create innovative digital learning environments that engage and support learning. 6c. Create learning opportunities that challenge students to use a design process and computational thinking to innovate and solve problems.</td>
<td>- Establish a time every day for morning/closing meetings and post the web conference link in one location to easily find each day (ISTE 5c &amp; NSQOL B3). - Individually greet students each day via web conferencing platforms and/or LMS announcements (ISTE 5b &amp; NSQOL B3). - Practice a collaborative, critical thinking activity (i.e., employ Jamboards, Google slides, chat box, etc.) to facilitate learning (ISTE 6c &amp; NSQOL C4).</td>
<td>edPuzzle, Google Slides, Jamboard, Loom, Thinglink, Web conferencing tools</td>
</tr>
</tbody>
</table>
Table 9
Example of interconnectedness of standards and competencies for o-SEL related to one example of facilitating critical thinking

<table>
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<tr>
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<tbody>
<tr>
<td>Engage</td>
<td>Responsible Decision Making: The abilities to make caring and constructive choices about personal behavior and social interactions across diverse situations. This includes the capacities to consider ethical standards and safety concerns, and to evaluate the benefits and consequences of various actions for personal, social, and collective well-being.</td>
<td>B-SS 5. Demonstrate ethical decision-making and social responsibility</td>
<td>Safety &amp; Predictability: Establishing physical, relational, and emotional safety, as well as predictability in the environment, can assist us to focus resources on healthy development, wellness, learning, and teaching.</td>
<td>Action 19. Students will make principled decisions about when and how to take a stand against bias and injustice in their everyday lives and will do so despite negative peer or group pressure.</td>
<td>6c. Create learning opportunities that challenge students to use a design process and computational thinking to innovate and solve problems.</td>
</tr>
</tbody>
</table>

The Collaborative Model for Teaching o-SEL distinguishes itself from other SEL models because it focuses on three areas: 1) practitioners’ voices and thoughts; 2) a combination of five sets of standards and competencies (including ISTE standards to illustrate the overlap, interconnectedness, and alignment); and 3) inclusion of pedagogical examples for each element and recommended online tools and apps to implement in the classroom. In the next section, we discuss how the Collaborative Model for Teaching o-SEL can support students’ needs.
DISCUSSION

As schools expand their online options, it is important for educators to have access to professional learning that helps them better adapt to an online environment. We can help PK-12 educators meet their learners’ SEL needs in online environments by providing a model for better understanding SEL and how it can be implemented online (i.e., o-SEL). During our analysis, six themes emerged: 1) Empowering o-SEL environment; 2) Engaging o-SEL environment; 3) Motivating o-SEL environment; 4) Inclusive o-SEL environment; 5) Collaborative o-SEL environment; and 6) Extended o-SEL environment (see Figure 2).

There have been arguments in recent years, especially in the wake of the school closings, due to the COVID-19 pandemic, that online instruction is less effective than in-person instruction. However, scholars argue this assertion is made in cases where educators do not have experience with best practices for teaching online (e.g., Farmer & West, 2019). The pedagogical approaches within our modules demonstrate research-based practices, as well as offer suggestions to be modified and implemented for PK-12 online learning environments.

CASEL (2021a) argues SEL instructional practices are most effective when they are SAFE (i.e., Sequenced, Active, Focused, and Explicit). Using this approach should lead to enhanced experiences for the educators who engage in the professional learning and for the PK-12 learners that educators teach. CASEL’s (2021a) website includes study results, which indicate that using effective SEL practices leads to better academic performance, improved attitudes, and behaviors, and reduced emotional distress in learners, regardless of their race, socioeconomic background, or school location. Learners deserve to have those outcomes in online environments, but that can only occur if educators have the proper training to effectively teach o-SEL.

Some scholars have made the case that SEL instruction that is not culturally relevant can serve to reinforce inequities and undermine the mental health of learners from populations that are underrepresented (e.g., Mahfouz & Anthony-Stevens, 2020; McManus, 2021). Therefore, we worked to focus on SEL instructional practices that are culturally responsive and part of everyday research-based practices, such as class check-ins and morning meetings. This focus on cultural relevance, along with the inclusion of modeling and scaffolding from whole group to individual tasks, should assist learners in moving toward autonomy and self-regulation.
While the creation of our online modules was grounded in existing standards related to SEL instruction, as well as teaching and learning with technology, we also relied on the information gained from the practitioners in our design thinking brainstorming sessions. As administrators and other educators in organizations work to create professional development opportunities for educators, it is important to not overlook the knowledge that PK-12 educators in the field can offer. Implementing suggestions from educators ensures our advice, feedback, and suggestions take in account the existing realities of PK-12 teaching and learning.

**IMPLICATIONS AND FUTURE RESEARCH**

As the COVID-19 pandemic continues, there are many conversations about the emotional and mental health impact of this pandemic on children. One way to help mitigate these concerns is through creating healthy and collaborative online learning environments that teach PK-12 learners how to better navigate their emotions and develop pro-social skills. We argue that this model can better meet PK-12 learners’ o-SEL needs by training educators to design and create online instructional experiences that prioritize learners’ needs and include learning outcomes pertaining to relationship-building, decision-making, self-regulation, and social awareness.

Furthermore, this study is limited in scope to the outcomes pertaining to the development of this series and the framework that emerged because of the research required to create this content. Since our modules are recent creations, there are limitations to not yet having collected data on the impact of this professional development on student learning. These limitations lead us to pose questions for future research, such as: In what ways does online professional learning impact student learning related to o-SEL? How might this o-SEL model inform the design of future professional learning experiences related to designing effective online learning environments?

**RECOMMENDATIONS AND CONCLUSION**

We share a model for creating research-based o-SEL environments across PK-12 grade-levels, and then we recommend how to draw on this model. First, educational leaders can use this model to guide their SEL professional learning with PK-12 educators. Second, educational leaders can encourage the practice of creating o-SEL environments, regardless of
whether educators are teaching fully online or in-person. Third, our Collaborative Model for Teaching o-SEL can be utilized across the curriculum and should not be siloed as a course or period of the day. By implementing these elements across the curriculum, educators ensure learners are gaining transferable o-SEL skills. By valuing the six o-SEL elements as important components of teaching and learning across the curriculum, educators enhance the learning experience with the common goal of preparing effective online learning environments. Finally, this model is grounded in research-based practices that may improve online learning for all populations of students. Further research regarding how educators apply their learning from the o-SEL professional learning series in their classrooms is needed. While we have not yet seen the impact of this series on student learning, we aim for these research-based practices to effectively support PK-12 learners’ educational outcomes.

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