Many out-of-school time (OST) sites are incorporating literacy time in their programming to capitalize on the benefits associated with literacy instruction (Pelatti & Piasta, 2017). Afterschool is a perfect opportunity to foster a love of reading in children. Expanded learning in afterschool programs can make a difference in both short-term and long-term academic outcomes (Vandell, 2012).

However, OST staff may not know how to deliver evidence-based practices and meet the needs of diverse learners. In addition to understanding the behavioral and social needs of the children, OST staff should consider how to differentiate activities based on children's cognitive load. Cognitive load involves permanent information stored in long-term memory and temporary information stored in working memory. When working memory is overloaded, learning is hindered (Kalyuga, 2011). Intentional OST instructional design and programming can compensate for cognitive overload and maximize student learning (Kalyuga, 2011).

Coaching through professional development op-
opportunities can positively impact education. In one study, when coaching was implemented as professional development in a school setting, it had large positive effects on instruction and smaller positive effects on student achievement (Kraft et al., 2018). A successful summer program achieved significant gains in reading achievement through both pre-program professional development focused on child development and construction of engaging instruction (Rasco et al., 2013).

Professional development for coaches enables them to improve their ability to create a productive learning environment, which they can then pass on to frontline educators. This article outlines the creation and content of a professional development program in early literacy that was delivered to coaches who work with OST staff. The training content focused on meeting the literacy needs of diverse learners, grades K to 3, in one city's OST programs. To design the training, we consulted with the coaches who would be trained to learn about their own needs and the needs of the program staff they would be supporting.

Background

Significance of Coaches

In schools, coaches have been used to improve nonacademic practices such as classroom management (Sprick et al., 2006). Coaching has been linked to improved teaching practices, student learning, teacher collaboration (Guinney, 2001; Neufeld & Roper, 2003), teacher attitudes, skill transfer, feelings of effectiveness, and student achievement (Cornett & Knight, 2009). One common coaching approach to foster teacher growth is a continuous cycle of observation, reflection, feedback, and action (Knight, 2011). Professional development opportunities that offer coaching can be used to teach new skills or content knowledge (Kretlow & Bartholomew, 2010). The difficulty with standalone professional development activities is that they often fail to produce systematic improvements at scale (Harris & Sass, 2011). Coaching can address this issue by helping to transform new knowledge into improved instruction (Kraft et al., 2018).

Research on professional development with coaching has concentrated on schoolteachers (Ostrand et al., 2020; van Nieuwerburgh et al., 2019) rather than on OST staff (Sheldon et al., 2010). In a study by Miller et al. (2006), OST staff received weekly coaching from professional literacy coaches in conducting read-alouds and facilitating independent reading. OST staff reported feeling more comfortable leading literacy activities and saw improvement in their students’ literacy skills compared to the beginning of the year. Sheldon et al. (2010) found that ongoing coaching and professional development led to improvement in OST program quality. Additionally, a 2019 study by Farrell, Collier-Meek, and Furman found that ongoing coaching was positively associated with implementation of positive behavioral intervention and supports at both the staff and program levels. Coaching is one of the most effective methods for improving OST staff quality, along with assessment, training, and data feedback (Phillips Smith et al., 2018).

Effectiveness of Online Professional Development for Coaches

In order to provide literacy coaching to educators, coaches must themselves participate in high-quality professional development. In professional development sessions, they can increase their content knowledge, evaluate current best practices, and refine their coaching skills.

Research has identified several components of high-quality online professional development:

- **Collective participation** creates a productive learning environment (Desimone & Pak, 2017) in which participants share responsibility for the activities in which they engage (Vrasidas & Zembylas, 2004).
- **Coherence** (Desimone & Pak, 2017; Vrasidas & Zembylas, 2004) aligns the professional development with the mission and needs of the institution and its constituents.
- **Active learning** through authentic tasks uses real-world scenarios to help participants make direct connections to their professional practice. Active learning correlated to educators' needs has been proven to increase the effectiveness of professional development (Garet et al., 2008; Loucks-Horsley et al., 2009).

According to Vrasidas and Zembylas (2004), online professional development is stronger when participants are involved in the development of the course, providing input on structure, goals, and assessment methods. Development should be a continuous process in which course designers evaluate and modify courses based on written and oral feedback from participants, analysis of multiple assessments, and evaluation of the course's online learning tools (Vrasidas & Zembylas, 2004).
This online professional development for literacy coaches, like many such courses, offered participants who completed the program a micro-credential. According to the National Education Association (n.d.), a micro-credential is “a short, competency-based recognition.” Use of micro-credentials is grounded in research and aligned with best practices for adult learners in that it is flexible and personalized (Acree, 2016; National Education Association, n.d.). A post micro-credential completion survey found that “97% of respondents indicated that they wanted to pursue another micro-credential in the future” (Acree, 2016, p. 2).

**Literacy in OST Programming**

OST programs typically provide not only a safe place for children while parents are working but also homework help and a space where children can socialize with peers. Some also focus on developing academic skills, including early literacy (Sheldon et al., 2010). Incorporating literacy instruction can not only improve academic achievement but also provide students with multiple varied literacy experiences, a critical requirement for early literacy development (Spielberger & Halpern, 2002). Children from low-income households and English language learners (ELLs) particularly need increased and varied opportunities to practice skills. Targeted reading and writing instruction in afterschool programs, though it cannot replace school learning, has been shown to close the literacy achievement gap in low-income neighborhoods. For example, a four-year study of an afterschool program that implemented structured literacy and reading training along with individual tutoring and choice-based book distribution with kindergarten to third grade children in public housing communities found growth in reading proficiency that was significantly higher than that of a similar group of children who did not participate (Douglass Bayless et al., 2018).

Additional literacy instruction during OST programs can be invaluable to students. Maxwell-Jolly (2011), for example, advocates for systematic literacy instruction to help ELL students. OST programs should engage in intentional planning—including interactive activities to practice language and reading skills—and provide consistent professional development opportunities for staff members (Maxwell-Jolly, 2011).

Although some evidence indicates that OST program staff generally have high levels of education (Gao et al., 2014), many OST sites are staffed by volunteers or part-time staff who have different levels of knowledge, expertise, and access to professional development (Bradshaw, 2015). Compounding this issue are staff shortages due to the COVID-19 pandemic (PASE, 2021). In order to support programs with a focus on early literacy, professional developers need to take into consideration the time and expertise of current and future OST staff as well as their access to opportunities (Bradshaw, 2015).

**Training Literacy Coaches to Support OST Staff**

Our project trained coaches to support OST program staff in providing differentiated early literacy instruction. The process of developing this train-the-trainer model involved identifying needs, deciding on topics, developing the training materials, and then implementing the training (Figure 1). The development team consisted of the three authors: Lori Severino is a university faculty member with expertise in literacy practices; Sinead Meehan is a doctoral student with Montessori experience; and Lauren Fegely was, at the time of this project, an undergraduate preservice teacher in secondary English.

**Participants**

We created a professional development program for eight literacy coaches and program liaisons from Philadelphia’s Office of Children and Families (OCF). Literacy coaches support the implementation of “light-touch” literacy practices at multiple OST sites across the city. These light-touch practices include interactive read-alouds, independent reading, and literacy-rich environments. Program liaisons are assigned to specific OST sites, where they support many activities including light-touch literacy practices.
Process

Our first step was to work with the literacy coordinator at OCF to identify the literacy coaches and program liaisons to participate in the pilot program. To help determine the topics to be covered in the training, we conducted a needs assessment, interviewing four of the eight literacy coaches and program liaisons regarding their perceptions of the OST centers' literacy strengths and areas for improvement. Philadelphia’s OST system has identified literacy support to children in grades K to 3 as a focus of its strategic plan. Many OST programs have been working to construct literacy-rich environments that are conducive to read-alouds and independent reading, among other literacy practices.

Analysis of the interview data revealed several recurring themes. Respondents described a range of successful read-aloud instructional strategies, though use of these strategies was not consistent across sites. Half of the participants described instances when OST staff members brought theatrical flair to their read-alouds by putting on costumes, reading in different voices, and acting out scenes. Interviewees said that these strategies led to high student engagement. Another effective instructional strategy was the use of questioning and conversation. Half of the OCF interviewees provided examples of OST staff members asking children to make predictions based on a book’s cover; using sticky notes to delineate opportunities to stop, question, and discuss the text; and using read-alouds as an opportunity to build vocabulary.

However, respondents also described challenges with read-alouds. Some OST staff members failed to intentionally prepare for read-alouds, thus missing opportunities for questioning, conversations, and extension activities. Classroom management of undesirable student behaviors was also recognized as a challenge.

Interviewees told us that, although most OST sites consistently incorporated read-alouds into their daily schedules, only a few designated time for independent reading. At those sites, interviewees saw staff members creating quiet and comfortable spaces where students could read independently. They also observed staff members walking around to assist children during independent reading time.

We used the information from the needs assessment to develop train-the-trainer sessions for the lit-
We planned a total of 10 two-hour sessions whose topics were designed to address the varied literacy needs of OST program participants in grades K through 3.

**Training Format**

We had planned to deliver the training to OCF coaches in person but switched to live (synchronous) virtual sessions due to the COVID-19 pandemic. Lori and Sinead, the university faculty member and the graduate student, led all 10 sessions, which were presented every other week for four months. We created a course manual (Figure 2) and mailed it to all eight training participants along with hands-on materials they could use to practice activities, such as dry-erase markers and white plastic plates to serve as dry-erase boards. At the beginning of each session, participants were provided a brief introduction to the topic, followed by a list of objectives for the session and a glossary of important terms. Sessions continued with a mix of instructor presentation, whole-group discussion, small-group discussions in breakout rooms, and hands-on practice followed by reflection.

**Training Content**

The session topics covered how to identify learners’ needs, how to incorporate strategies that address those needs, and how to assist and encourage learners. Coaches would then implement these strategies with OST staff members, who would learn by example how to implement them with program participants.

**Session 1: Differentiation**

The first session provided an overview of what differentiation is and is not. We adapted Tomlinson’s (2017) model of differentiating by content, process, or product. Content could be differentiated by texts that have a variety of genres or readability levels and by medium, such as print, audio, video, or presentation. Differentiating by process means using varied activities such as read-alouds, choral reading, readers theater, or repeated reads (that is, reading the same text again). Differentiating by product offers children choices in how to show their learning, for example, by writing, drawing, or performing.

Differentiation does not require providing something different for every child. Rather, educators offer different ways to access information in order to meet the needs of diverse learners. Differentiation does require advance planning, with the needs of the children at the forefront.

**Session 2: Diversity**

This session focused on two kinds of diversity: disabilities and cultural differences. Before the session, we asked trainees to think about the children they observe...
at the OST centers: “Are there children who sit away from others? who are walking around when others are working? whose behaviors are challenging for adults?”

Prework included reading Categories of Disability Under IDEA by the National Dissemination Center for Children with Disabilities (2012) and listening to the Cult of Pedagogy podcast “Culturally Responsive Teaching: 4 Misconceptions” (Gonzalez, 2017).

The first half of the session guided the OCF coaches through the 13 disability categories of the Individuals with Disabilities Education Act (IDEA) and suggested specific activities that can help learners who have the most common disabilities. We gave the coaches research articles, videos, and websites to share with OST centers. The second part of Session 2 addressed cultural diversity and culturally responsive teaching frameworks. Cultural diversity can have a large impact on academic achievement and motivation to learn; when students speak a language other than the one spoken at the center, culturally responsive education helps them acquire that language (Gay, 2000).

**Session 3: Literacy Theories and Models**

To prime the discussion about literacy theories, coaches were asked, “What do you think children should be able to do pertaining to reading in kindergarten and first grade?” We also asked them to be ready to share a memory about learning to read. This session focused on children’s existing and developing literacy skills. Prework including watching the video What Is Phonological Awareness? (Understood, 2019) and reading the article “Rethinking Differentiation—Using Teachers’ Time Most Effectively” (Marshall, 2016).

The literacy models we examined were Young’s ladder of reading (2020), Ehri’s reading stages of development (1995), the simple view of reading (Gough & Tunnier, 1986), and Scarborough’s reading rope (2001). The reading rope, on which we relied in subsequent sessions, shows the many skills that make up the ability to read as strands that weave together into a rope that represents “skilled reading” (Scarborough, 2001). The goals were to enable OCF coaches to understand the typical reading development of children; to empower them to show OST staff how to identify the effect on reading of learning differences, behavior issues, or trauma; and to teach them to coach OST staff to introduce read-alouds and other reading activities and supports. Again, OCF coaches received resources to share with OST sites.

“Are there children who sit away from others? who are walking around when others are working? whose behaviors are challenging for adults?”

**Session 4: Word Identification, Phonemic Awareness, and Phonics**

The required reading for this session was The Importance of Phonics Instruction for All Students (Reed, 2016). We also asked coaches to watch a video on Syllable Types (Severino, 2021) and to contemplate how OST staff could use identification of syllable types and syllable segmentation to develop children’s literacy skills.

During the session, we focused on the word recognition strand of Scarborough’s reading rope (2001), which consists of phonemic awareness, decoding, and sight recognition skills. To learn about phonemic awareness, the coaches completed activities on isolating, blending, and segmenting sounds as well as adding, deleting, and substituting sounds using Elkonin (1963) boxes. Elkonin boxes are presented in sets of four on worksheets, one for each of four potential sounds in a word. To practice phonemic awareness, children listen for each sound in a word and move a marker (such as a penny, poker chip, or M & M) into a box for each separate sound. For example, the word “cat” has three individual sounds. A child would slide one marker for the sound /k/ into the first empty box on the paper, another marker for the sound /a/ into the second box, and another marker into the third box for the sound /t/. The fourth box would remain empty. The idea is for the child to listen for individual sounds (phonemes) in a word and be able to identify each sound. Once children identify how many sounds are in a word, they can match letters to those sounds. This is a great predictor of later reading skill.

For decoding, we guided coaches through the six syllable types and syllable division rules, providing activities and resources for use with OST staff. For sight recognition, we introduced a model for teaching high-frequency words by helping learners identify the sounds in each word that follow regular patterns and what part of the word is the “tricky” part.
Session 5: Language Comprehension
This session highlighted the comprehension skills of Scarborough’s reading rope (2001). To prime coaches for this session, we asked them to reflect on the connections they make to their own prior knowledge while reading and then think about how to help students make such connections. Next, we asked them to watch the video Teaching Text Structures for Non-Fiction Reading (Cult of Pedagogy, 2014), reflect on how knowing text structures (or genres) aids comprehension, and consider how to teach text structures to children. The last assignment was to read the article “Building Background Knowledge” (Neuman et al., 2014).

During the session, we taught the coaches about developing background knowledge, vocabulary, language structures, verbal reasoning, and literacy knowledge. We introduced the 95 Percent Group’s Comprehension Process Continuum (2011), providing an example of modeling for each step of the continuum and offering differentiation activities. In virtual breakout rooms, the coaches discussed the importance of building background knowledge and participated in sample activities. Finally, we introduced the process of using graphic organizers to teach nonfiction text structures.

Session 6: Syntax, Semantics, Morphology, and Code Switching
This session delved more deeply into the language comprehension section of Scarborough’s reading rope (2001). As prework, coaches were asked to think about a common idiom that might confuse children whose first language is not English. The session also addressed code switching, which may be practiced not only by ELLs but also by native speakers of English who speak a particular dialect at home and in the community. The required reading for this session, “Julie Washington’s Quest to Get Schools to Respect African-American English” (Brennan, 2018), addressed code switching to help coaches realize how much mental work Black and Brown children can go through to shift from their cultural language to “school” language.

During the session, coaches watched a video on morphology (Institute of Education Sciences, 2016) that explained the study of word parts and provided sample instructional activities. We also walked the coaches through activities to teach sentence elaboration and the four sentence types: simple, compound, complex, and compound-complex. Finally, we asked coaches to think about how they could teach the morphology of a vocabulary word using Matt de la Peña’s Last Stop on Market Street (2015). They explored how word parts can help children understand a word’s meaning.

Session 7: Verbal Reasoning
This session covered verbal reasoning, inference, and figurative language. To prepare coaches for this session, we asked them to think about how they learned to make inferences and to consider how the inference process works. The video Rethinking Thinking (TED-Ed, 2012) built on their understanding of the cognitive process required to make inferences. The required reading was an article on inference from Reading Rockets (n.d.). We also asked coaches to consider how figurative language might be difficult for some learners.

During the session, we guided a discussion about where children struggle with inferences and figurative language. Verbal reasoning involves making meaning that goes beyond the information given, so the ability to apply verbal reasoning skills to new learning enables students to analyze, synthesize, and evaluate information. We showed coaches examples of inferences and figurative language in The Color Monster by Anna Llenas (2018) and then led a discussion about how to teach these skills. The session ended with a discussion of how learning disabilities affect students’ ability to understand figurative language.

Session 8: Fluency
This session communicated how to support children to develop the three components of fluency: accuracy, expression, and speed. The manual instructed coaches to consider what makes a fluent reader and how inability to read fluently might affect a child’s reading comprehension (Hasbrouck, 2020). It also prompted them to watch The “Essentials” of Developing Reading Fluency (Scholastic, 2014) and to read an article on fluency from Reading Rockets (2020).

We began the session by teaching the difference between automaticity and fluency. Once children learn to identify sounds in a word, they decode more quickly, thus developing automaticity. They do not have to
sound out each phoneme to read the word. Fluency is a cadence of reading quickly and easily. Fluent readers read aloud as they would tell a story: Their voice changes and they phrase words in a way the listener can understand. Coaches learned tools to improve children's fluency, including modeling strategies, readers theater, and audiobooks (Reading Rockets, 2020). They received a list of audiobook resources to take to the OST centers.

Session 9: Writing
This session covered the components of writing, types of sentences, and graphic organizers to assist children in writing. To prepare, coaches were asked to think about parts of speech and sentence structures and to consider how to teach these concepts. They watched a video on simple, compound, and complex sentence structures by EasyTeaching (2018). The reading for this session, How to Teach Writing in the Early Primary Grades (Jocelyn Seamer Education, n.d.), introduced the many components of writing, such as handwriting, phonetic awareness and encoding, spelling, syntax and the parts of speech, and text structure.

In the session, we provided instruction on parts of speech, types of sentences and clauses, prepositional phrases, and conjunctions. Writing activities the coaches could share with OST staff included “the hamburger model,” a graphic representing the parts of a good paragraph. A paragraph needs an introduction (top bun), the details or meat of the topic (hamburger, lettuce, tomato), and the conclusion (bottom bun). The hamburger model helps children visually see the parts needed to develop their writing. Another activity involved using the mnemonic POW TREE to walk children through the writing process (Graham & Harris, 2000). POW stands for Pick my idea, Organize my thoughts, Write more. The TREE part of the mnemonic helps children organize a paragraph by writing a Topic sentence, giving three Reasons that support the topic sentence, Explaining how those reasons relate to the topic sentence, and adding an Ending sentence (Graham & Harris, 2000).

Session 10: Behaviors
The final session examined the difference between learning issues and behavior issues and presented types of consequences, prevention strategies, and problem-solving strategies. The thinking prompt asked coaches to consider what behaviors OST staff members struggle with most. Coaches watched the video Engaging Children in After School Programs (Parks and Recreation Ontario, 2019) and read an article about relationships in relation to behavior management (Kirylo, 2009).

Focusing on the common behavior issues OCF interviewees had observed in the OST centers, we led a discussion designed to help coaches understand the antecedents of undesirable behaviors. We presented information on children's developmental stages and on coping mechanisms used in a traditional behavior model. We gave them behavior guidelines, prevention strategies, and conflict resolution strategies to share with OST staff. One such strategy, ACT (Holstead, n.d.), prompts adults to Acknowledge the child's behavior and what motivated it, Communicate the rules or limits and the consequences for breaking them, and Target choices by providing the child with acceptable alternative actions.

Next Steps
Training OCF coaches to train OST program staff in literacy strategies for diverse learners enables scaling of effective practices across multiple sites over many years, despite high staff turnover. This model thus builds capacity to sustain change for the long term. The 20 hours of training for OCF literacy coaches and program liaisons both introduced evidence-based literacy strategies and promoted collaboration so the trainees can support one another in their work as coaches in OST sites. Data analysis and a study of the effectiveness of this training will be completed at the end of the 2021–2022 school year.

We used real-world scenarios as much as possible in the training to provide authenticity (Desimone & Pak, 2017). When OCF trainees proposed additional strategies that they thought would be effective or that they had witnessed at OST sites, we took detailed notes. These notes and the feedback trainees provided will influence future training modules.

This training was the first step in this project. The next step is to support the OCF literacy coaches and program liaisons during their coaching at five pilot OST sites. The literacy expert who led the training ses-
sions will observe literacy practices in these five sites alongside the literacy coaches. The trainer will coach the OCF literacy coaches and program liaisons as they themselves start to coach OST staff to implement light-touch literacy practices. After 10 weeks of implementation with the trainer’s support, the literacy coaches and program liaisons will continue coaching and mentoring at the five pilot sites for four more months. After that pilot period, an independent evaluation of the light-touch literacy practices will begin.

The support we provide will help the literacy coaches and program liaisons implement light-touch literacy practices throughout OST programming. For example, if a literacy coach and trainer observe that the staff at an OST site are doing read-alouds but are not incorporating activities to support children’s skill development, they might suggest activities that would help children focus on how many sounds they hear in a word. This phonemic awareness skill supports both reading and spelling. Let’s say that the book is The Field by Baptiste Paul (2018), which features a soccer game that can begin only after children shoo animals out of the field. The literacy coach could show the OST staff member how to use soccer balls to help children with phonemic awareness. Each pair of children has a soccer ball, which they pass once for each sound in a word. For the word “shoo,” the first child kicks the ball to the other while saying /sh/. Then their partner kicks it back, saying /oo/. Then together both children say “shoo.” The training the literacy coaches and program liaisons received equips them to mentor the OST staff to incorporate activities like this.

OST staff can incorporate literacy-skill building activities into what they are already doing without needing deep knowledge of the research behind the strategies. However, we will make these evidence-based differentiated strategies available to OST staff online in modules consisting of three- to five-minute video clips and downloadable materials on the topics discussed in the training. The literacy coaches and program liaisons can use these materials to support their coaching and mentoring efforts. In addition, OST staff can access the resources if they want to know more about strategies their coach is suggesting.

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