Altarum

ENVIRONMENTAL SCAN | OCTOBER 2026

Youth Literacy Programs in Out-of-School Time: An Environmental Scan

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Executive Summary



Background

The Michigan Department of Lifelong Education, Advancement, and Potential (MiLEAP) provides Out-of-School Time Grants to organizations serving youth throughout Michigan. The purpose of these grants is to provide high-quality before school, afterschool, before-and-afterschool, and/or summer programming in-person to youth in kindergarten through 12th grade that exposes youth to expanded learning opportunities through science, technology, engineering, and math (STEM); art; music; literacy; mentoring; community engagement; and much more. MiLEAP has recently identified literacy as a priority area for its out-of-school time (OST) programming.

The State Alliance of Michigan YMCAs (State Alliance) is a recipient of a 2025-2026 MiLEAP Out-of-School Time Grant and coordinates the implementation of this grant for 25 local Michigan YMCAs. The State Alliance provides grant oversight, including distributing grant funds, offers technical assistance, as well as ensures YMCAs are meeting program requirements. In 2026, the State Alliance partnered with Altarum, a non-profit research organization, to conduct an environmental scan of youth literacy interventions, measurement approaches, and state implementation practices. This scan reviewed 34 peer-reviewed and grey literature resources and synthesized findings into an Evidence-Informed Framework for OST Literacy Programming.

Findings

No single curriculum, delivery model, dosage, assessment, or state implementation approach emerged as the standard for OST literacy programming. Instead, the literature describes a wide range of approaches that differ in their target populations, literacy content, delivery methods, implementation supports, and evaluation strategies.

Several themes emerged across the evidence base. Literacy programming was commonly delivered through combinations of tutoring, small-group instruction, mentoring, technology-supported learning, family engagement, project-based approaches, and broader enrichment activities. State-level resources emphasized implementation supports such as staffing, training, partnerships, instructional resources, data systems, volunteers, technology, and funding. Most resources reported positive outcomes, but the evidence base was generally insufficient to identify a single preferred curriculum or delivery approach.

To organize these findings, Altarum developed an Evidence-Informed Framework for OST Literacy Programming. The framework is organized around seven domains: Population; Literacy Curriculum and Content; Program Design and Delivery; Implementation Supports; Participation and Dosage; Evaluation and Measurement; and Continuous Improvement and Sustainability. Rather than prescribing a specific model, the framework identifies key areas for programs to consider and define based on their population, goals, resources, and local context. An accompanying application guide supports use of the framework during program planning, implementation, evaluation, and improvement.

For the State Alliance, the findings support allowing flexibility in local literacy models while establishing clear program expectations, using the framework to guide planning and review, clarifying expectations for evaluation and measurement, and defining which implementation supports will be coordinated centrally versus provided by individual YMCAs.



Introduction



Background

The Michigan Department of Lifelong Education, Advancement, and Potential (MiLEAP) supports organizations across Michigan to provide academic enrichment opportunities to school-aged youth during out-of-school time (OST).[1] Through its OST and Summer Learning initiative, MiLEAP supports before-school, afterschool, and summer learning opportunities utilizing federal and state funding. MiLEAP provides Out-of-School Time Grant funds to organizations throughout Michigan to support expanded learning opportunities in core subject areas, such as literacy, science, technology, engineering, and math (STEM); mentoring community engagement; and other enrichment activities in OST programs. MiLEAP-funded programs are intended to expand access to OST and summer learning opportunities, accelerate learning, and reduce participation costs for families.

The State Alliance of Michigan YMCAs (State Alliance) coordinates the implementation of the MiLEAP program across Michigan YMCAs. As the grant recipient, the State Alliance takes a lead role in distributing the funding to YMCAs based on program sites, providing technical assistance support to YMCAs, and assessing YMCAs' progress implementing the MiLEAP program at their before and/or afterschool and summer program sites. With literacy identified as a priority for the 2026–2027 grant cycle, the State Alliance partnered with Altarum, a non-profit research organization to conduct an environmental scan examining the current landscape of youth literacy programming in OST settings.

Purpose and Objective

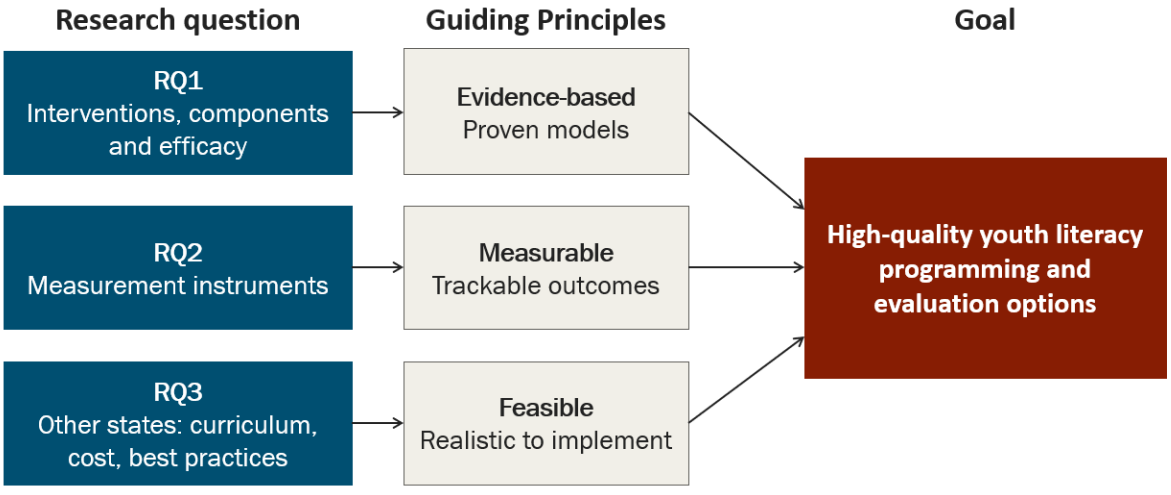
The purpose of this environmental scan is to support the development, implementation, and evaluation of OST literacy programming in Michigan. The objective of this environmental scan is to identify and synthesize evidence- and practice-based information on youth literacy interventions, measurement approaches, and state-level implementation practices relevant to OST settings serving youth in kindergarten through eighth grade (K-8).

Research Questions

The research questions guiding this environmental scan are described below. Exhibit 1 shows how each research question connects to the guiding principles and overall goal of the scan.

1. What types of youth literacy interventions exist for OST settings, what are their components, and what evidence of efficacy is reported?
2. What instruments and tools exist to measure youth literacy outcomes in OST settings?
3. How are other states implementing and evaluating youth literacy programs in OST settings?

Exhibit 1. Logic Model Guiding Out-of-School Time Literacy Program Environmental Scan



Methodology



Methods

This environmental scan used two complementary search approaches: a targeted peer-reviewed literature search in the Education Resources Information Center (ERIC)[2] and a structured grey literature search. The peer-reviewed and grey literature searches informed the questions on OST literacy interventions and measurement tools. The analysis of state implementation approaches drew primarily on government, statewide network, association, and organizational resources identified through the grey literature search. Detailed databases, sources, and search terms are provided in the **Appendix**.

Eligibility Criteria

Resources were eligible if they addressed youth in K-8 in afterschool, summer, or other OST settings in the United States and directly informed at least one of the research questions. Eligible source types included peer-reviewed articles, government and organizational reports, toolkits, curriculum descriptions, policy briefs, and other resources from reputable organizations. Resources focused exclusively on school-day or clinical settings, published outside the specified time frame or written in languages other than English were excluded (**Exhibit 2**).

Exhibit 2. Eligibility Criteria for Environmental Scan of Out-of-School-Time Literacy Programs for K-8 Youth

Criterion	Inclusion	Exclusion
Location	United States	International settings
Population / Setting	Youth in grades K–8; out-of-school time, afterschool, or summer program settings	Sources focused exclusively on in-school or clinical populations
Time Frame	July 2016 to July 2026 (time of search)	Published outside of inclusion timeframe
Source Type	Peer-reviewed articles, government/organization reports, toolkits, curriculum descriptions, policy briefs	Opinion pieces, editorials, or sources without an identifiable author or organization
Language	English	Non-English sources
Relevance	Sources that directly address at least one of the research questions	Sources that mention youth literacy only incidentally or don't directly address a research question.

Search Strategy

The peer-reviewed search was conducted in ERIC in July 2026 using terms related to OST settings, literacy and reading, youth populations, interventions, measurement, evaluation, and implementation. Results were limited to peer-reviewed resources.

The grey literature search used a structured, site-by-site approach across federal and state agencies, research and policy organizations, literacy-focused organizations, OST and youth-development organizations, statewide networks, curriculum providers, and other relevant sources. Search terms addressed youth literacy programs, afterschool and summer settings, evaluation and measurement,



implementation practices, state approaches, curriculum costs, and evidence of effectiveness. Additional curriculum-provider websites were reviewed to verify current availability, pricing, grade levels when this information was not available in the included resources. Information obtained from these supplemental sources was used to describe curricula but was not included in the count of resources reviewed for the environmental scan. Detailed information on search sources and terms is provided in the **Appendix**.

Screening and Data Extraction

One reviewer screened peer-reviewed records by title and abstract and then reviewed the full texts of potentially eligible resources. Potentially included grey literature resources proceeded directly to full-text review. Inclusion and exclusion decisions were documented in an Excel workbook.

Data were extracted using a standardized set of fields addressing resource characteristics, population and setting, literacy curriculum and content, program components and delivery approaches, dosage and participation, implementation supports, evaluation measures, reported outcomes, state-level practices, costs, and other information relevant to the research questions.

Synthesis and Analysis

Findings were organized and synthesized by research question using descriptive counts and narrative synthesis. The analysis identified and described recurring characteristics across the included resources, including populations and settings, literacy content and curricula, program design and delivery approaches, dosage and participant exposure, evaluation and measurement approaches, reported outcomes, and state-level implementation practices. Counts indicate how many resources explicitly described a characteristic and should not be interpreted as measures of importance or effectiveness.

Named curricula and literacy programs were compared using available information on grade levels, literacy domains, setting, cost, availability, dosage, study design, and reported outcomes. Recommendation categories were developed to summarize the relative strength and applicability of the information identified through the scan. The criteria for these categories are presented with the curriculum results and are intended to support interpretation rather than provide definitive judgments of effectiveness.

For state-level findings, information was synthesized across resources to describe implementation infrastructure, funding and cost information, and variation in state approaches. Findings across the three research questions were then considered together to identify the major areas relevant to OST literacy program planning, implementation, evaluation, and continuous improvement. These areas informed the evidence-informed framework presented later in the report.



Results from Environmental Scan



Overview of Included Evidence

The resource search and selection process is shown in **Exhibit 3.** There were 34 resources included in the environmental scan, including nine from the database search, and 25 from the grey literature search (e.g. reports from non-profits or associations (n=15), government/state agencies (n=7), curriculum provider materials (n=2), and one additional website).[3–36]

Thirty-one resources examined OST literacy interventions (Research Question 1), 26 resources described instruments to measure literacy outcomes in OST (Research Question 2) and 12 resources addressed state-level OST literacy programming (Research Question 3).

Exhibit 3. Search and Selection Process for Environmental Scan on OST Literacy Programming



Populations Served

All resources included elementary school students, and 14 also included middle school students. English language learners were described in 18 resources, and 12 included youth requiring additional literacy support. These categories were not mutually exclusive, and resources varied in whether they were designed specifically for these populations or included them within broader OST programming.

English Language Learners

Several resources described literacy programming for English learners and multilingual youth. Davis et al. developed Knowledge, Language, and Structured Inquiry (K.L.I.) specifically for Spanish-speaking multilingual English learners in grades 3-5, using recurring small-group routines to build language knowledge, content knowledge, word study, sentence development, and reading comprehension.[15] The ReWA Youth Program combined literacy support for immigrant and refugee youth with caregiver workshops, while the Georgia Statewide Afterschool Network described culturally responsive, individualized supports for English learners, including visual aids, peer learning, and culturally relevant content.[7,16]

Students Requiring Additional Literacy Support

Several resources focused specifically on students who were reading below grade level or identified as needing additional literacy support. Pindiprolu et al. enrolled K-2 students scoring below the 15th percentile on a local or state reading measure in computer-based afterschool reading programs.[28] Roberts et al. screened upper-elementary students for reading difficulty before assigning eligible students to two intensive afterschool interventions, and Lindo et al. evaluated structured tutoring for struggling elementary readers.[21,32] YMCA Reads served students reading in the bottom 20% of their grade level, Y Readers enrolled rising third graders reading below grade level, and the Bridge Project

was designed to improve outcomes for struggling readers through a combination of curriculum, tutoring, and book distribution.[11,14,36] These examples illustrate that programs serving students who are reading below grade level often used eligibility criteria, screening measures, referral processes, or progress-monitoring approaches to identify participants and tailor supports.

Program Settings

Thirty resources described afterschool programming, and 19 described summer programming. Fourteen resources described school-based programs, and 18 described community-based programs. Twelve resources included 21st Century Community Learning Centers (CCLCs), and four included YMCA programs. These categories were not mutually exclusive.

School-based OST examples included K.L.I., which was delivered after school in elementary schools; and YMCA Reads, which was implemented in Title I schools through a YMCA-school partnership.[14,15] Community-based examples included the Bridge Project in Denver public housing communities, literacy interventions delivered through Boys & Girls Clubs, and SOAR United tutoring delivered through community-based childcare and afterschool settings.[11,12,28,34]

OST Literacy Interventions

Thirty-one resources addressed Research Question 1, which examined the types of youth literacy interventions used in OST settings, their components, and reported evidence of effectiveness.[3,5–26,28–32,34–36] Findings are presented across four areas: literacy curriculum and content, program design and delivery, dosage and participant exposure, and evidence of effectiveness.

Literacy Curriculum and Content

The scan identified 13 curricula and named literacy programs.[9–14,17,21,22,26,28–32,34] Eleven were described directly in at least one reviewed resource. Open Court Reading and Fast ForWord were identified through a broader review of multiple literacy programs.[30] Twelve of the 13 curricula served at least some K–5 grades. SIPPS, BellXcel/Arly, and Fast ForWord also included middle or high school grade levels. **Exhibits 4a** and **4b** summarize the curricula identified in the scan, including their availability, cost, grade levels, literacy domains, setting, dosage, and evidence of effectiveness.

The curriculum ratings should be treated as a starting point for further review rather than a final decision tool. The ratings reflect the evidence and information identified through this scan and should be interpreted alongside local program goals, participant needs, implementation capacity, and available resources.

Exhibit 4a. Legend for Rating for Out-of-School Time Youth Literacy Curriculum

Consider	Reasonably transparent cost/availability AND a comparatively stronger study design (quasi-experimental or better).
Consider with Caveats	A viable, currently available option, but with a limited study design (pre-post, single-site pilot, vendor-produced), or evidence that is not curriculum-specific.
Insufficient Evidence	Not enough information to assess, OR the curriculum does not appear to be currently available/purchasable. This is NOT the same as evidence the curriculum doesn't work.
Not Recommended	Not commercially available and no evidence of effect on the outcomes measured.



Exhibit 4b. Ratings and Descriptions of Out-of-School Time Youth Literacy Curriculum

Recommendation	Curriculum	Brief Description	Why	Grade Levels	Cost	Literacy Domains	Setting	Evidence of Effectiveness	Geographies Assessed	Dose Assessed
Consider	**Systemic Instruction in Phonological Awareness, Phonetics, and Sight Words (SIPPS)**[13,14,37]	Reading curriculum aimed at helping new and struggling readers build fluency, decoding, and comprehension skills through a systematic, multi-level approach	• Broadest evidence base in the scan • Quasi-experimental design • Adoption in several states • On the more expensive side	K-12	• Beginning 5th ed. $1,450 • Challenge $1,050 • Little Books $500	• Phonological Awareness • Reading Comp. • Vocabulary • Fluency • Phonics	• Afterschool	• Positive • Quasi-experimental Grades K-9	• California • Florida • Massachusetts • Pennsylvania • Virginia • Colorado	• 6 wks-7 mo • 10-25 min sessions
Consider with caveats	**Heggerty**[26,38]	Daily phonemic awareness curriculum, grade-specific lessons	• Affordable and widely used • Self-reported outcomes; no comparison group	PreK-5	• $49-159/title	• Phonemic Awareness • Phonics • Writing	• Afterschool • Summer	• Positive • Statewide self-report, no comparison • PreK-12 (1-5 most common)	• Ohio, statewide	• Not reported
Consider with caveats	**Voyager Passport**[34,39]	Supplemental reading intervention alongside core instruction	• Transparent cost • Broad domain coverage • Only single-site pilot data exists	K-5; 1-1.5 yrs behind grade level	• Reading Pack $98 • Teacher Kit $479 • Renewal $71	• Phonemic Awareness • Reading Comp. • Vocabulary • Fluency • Phonics • Writing	• Afterschool • Summer • Community-based	• Positive • Single-site pilot, no comparison group • Grades K-5	• Warren Co., Mississippi • Pilot for statewide scale-up	• 3-4x/wk, • 18 wks • 45 min
Consider with caveats	**BellXcel/Arly**[9,10,40]	Unified OST platform: curriculum, staff training, coaching, and evaluation	• One statistically significant literacy gain reported • Cost is unclear • Much of its evidence is vendor-produced	PreK-8	• No public pricing, quote-based	• Not described	• Afterschool • Summer • Community-based	• Positive • Single site • Grades K-6. • One source is a vendor brief citing 22 studies	• Rhode Island • Maryland	• 5-6 wk (summer) • 72-90 hrs
Consider with caveats	**Funnix**[28,41]	Online, direct-instruction-based phonics program	• Affordable • Randomized controlled trial evidence, though compared against another	Not specified	• $24.99-69.99/ month, no contract	• Phonemic Awareness • Reading Comp. • Vocabulary • Fluency • Phonics	• Afterschool • School-based • Community-based	• Positive • Randomized controlled trial • Grades K-2	• Utah	• 3x/wk, 5 mo • 30 min

Recommendation	Curriculum	Brief Description	Why	Grade Levels	Cost	Literacy Domains	Setting	Evidence of Effectiveness	Geographies Assessed	Dose Assessed
			program, not an untreated control							
Consider with caveats	**Summer Brain Gain**[12,42]	6-week project-based summer curriculum with theme modules	• One of only two rigorous designs in the scan • Mixed results • May only be usable with Boys and Girls Club of America-affiliated Clubs.	Elementary-High School	• Internal Boys and Girls Club of America program • Not sold externally	• Phonological Awareness • Reading Comp. • Vocabulary • Fluency • Phonics • Writing	• Summer • Community-based	• Mixed • Rigorous cluster-randomized controlled trial • Grades 1-3 significant gains, full sample (K-5) not significant	• National, 48 Clubs, sites unnamed	• 6 wks, • 3+ hrs/day • Varied by club
Consider with caveats	**Open Court Reading**[30,43]	Systematic K-5 reading/writing curriculum, inquiry-based	• Broadest domain list of any entry • No curriculum-specific outcome data	K-5	• No public pricing, contact vendor	• Phonological/ Phonemic Awareness • Reading Comp. • Phonics • Fluency • Vocabulary • Writing	• Summer	• No specific findings	• Philadelphia, Pennsylvania	• Not reported
Insufficient evidence	**KidzLit (May be retired)**[22,30,31,44,45]	Reading enrichment via read-alouds/ independent reading + discussion; builds character traits	• Weakest rigor category • No independently verifiable outcome data • Availability uncertain	K-8	• No public price	• Reading Comp. • Writing	• Afterschool • Summer	• Improved reading/ writing attitudes • Grades K-8	• Philadelphia, Pennsylvania	• Not reported
Insufficient evidence	**Headsprout (May be retired)**[28,46]	Adaptive Online reading intervention	• Randomized controlled trial evidence • Availability uncertain	K-2; companion product for grades 3-5	• Appears discontinued • No current pricing found	• Phonemic Awareness • Reading Comp. • Vocabulary • Fluency • Phonics	• Afterschool • School-based • Community-based	• Positive • Randomized controlled trial • Grades K-2 • Outperformed Funnix on 1 measure (word use fluency)	• Utah	• 5 mo • 3x/wk, • 30 min
Insufficient evidence	**Bookshop Phonics (May be**	Scripted phonics program: charts,	• One of the strongest effect	K-2	• No confirmed	• Phonemic Awareness	• Afterschool • Community	• Positive • Randomized	• Large city in Southwest	• 2x/wk • 25-45 min

Recommendation	Curriculum	Brief Description	Why	Grade Levels	Cost	Literacy Domains	Setting	Evidence of Effectiveness	Geographies Assessed	Dose Assessed
	retired)[21,47]	practice pages, decodable books	sizes in the scan • Availability uncertain		current price	• Reading Comp. • Vocabulary • Fluency • Phonics	-based	controlled trial with active control • Grades K-6	U.S.	• 27 sessions per year
Insufficient evidence	**Reading Go! / Reading Ready**[17,48,49]	Reading Go!: 5-component intervention. Reading Ready: phonics/spelling for emergent readers.	• No outcome data reported at all • Single descriptive mention, not an evaluation	Reading Ready: K-2. Reading Go!: grades 1-2.	• Reading Go! kit $300 (or $150 binders only)	• Phonemic Awareness • Reading Comp. • Phonics • Fluency • Vocabulary • Writing	• Afterschool • Community-based	• Not reported	• Idaho — College of Idaho	• Not reported
Insufficient evidence	**Fast ForWord**[30,50]	Adaptive reading/ cognitive-skills software	• Broad domain/grade coverage • No specific evidence • Cost isn't public	PreK-12	• No public pricing, quote-based	• Phonemic Awareness • Reading Comp. • Phonics • Vocabulary • Fluency	• Not specified	• No specific findings	• Philadelphia, Pennsylvania	• Not specified
Not recommended	**Text-Processing (TP) / TP+FS**[32]	Two comprehension interventions	• Most rigorous randomized controlled trial in the scan • No commercial availability	Grades 3-5	• Not commercial, researcher-developed (University of Texas)	• Phonemic Awareness • Reading Comp. • Vocabulary • Fluency • Phonics	• Afterschool • School-based	• No effect • Randomized controlled trial • Business-as-usual control Grades 3-5	• 2 Southwest U.S. districts, 7 schools	• 6 months • 4-5x/wk • 60 min/day

Of the 13 curricula, eight are currently available through standard commercial channels, with either published or quote-based pricing at the time of this scan. Summer Brain Gain is an active internal Boys & Girls Clubs of America program that does not appear to be sold externally. Three curricula, including KidzLit, Bookshop Phonics, and Headsprout, appear to be discontinued or no longer actively marketed, based on the sources located during this review. Text-Processing/TP+FS is a research protocol that appears to never have been brought to market and does not have commercial availability.

The evidence supporting these 13 curricula and programs is generally limited. SIPPS had the strongest combination of available evidence, implementation information, and current availability among the curricula reviewed. Two curricula were evaluated using randomized controlled trials: Summer Brain Gain reported mixed findings, while Text-Processing/TP+FS demonstrated no significant effect. The remaining evidence is a mix of quasi-experimental designs, pre-post evaluations without comparison groups, vendor-produced materials, and broader reviews of multiple programs. Most remaining curricula were classified as 'Consider with Caveats' or 'Insufficient Evidence' because the available evidence was limited, indirect, or not curriculum-specific. These ratings reflect the broader state of evaluation in OST literacy programming rather than a shortcoming of any individual curriculum.

Cost transparency varied widely across curricula: Heggerty and Funnix publish per-title or monthly pricing under $200, while several products (e.g., BellXcel/Arly, Voyager Passport, Fast ForWord, and Open Court Reading) require contacting the vendor directly for a price quote.

Several Michigan YMCA sites reported using Mizzen, a digital platform that provides literacy-related activities and collections focused on reading, writing, storytelling, communication, and related enrichment topics.[37] Based on the materials reviewed, Mizzen appeared to function primarily as a resource for literacy-related activities and collections rather than as a stand-alone literacy curriculum. The scan also did not identify evidence evaluating Mizzen as an OST literacy curriculum or intervention. Mizzen was therefore not included in the curriculum ratings summarized in **Exhibit 4b**.

Program Design and Delivery

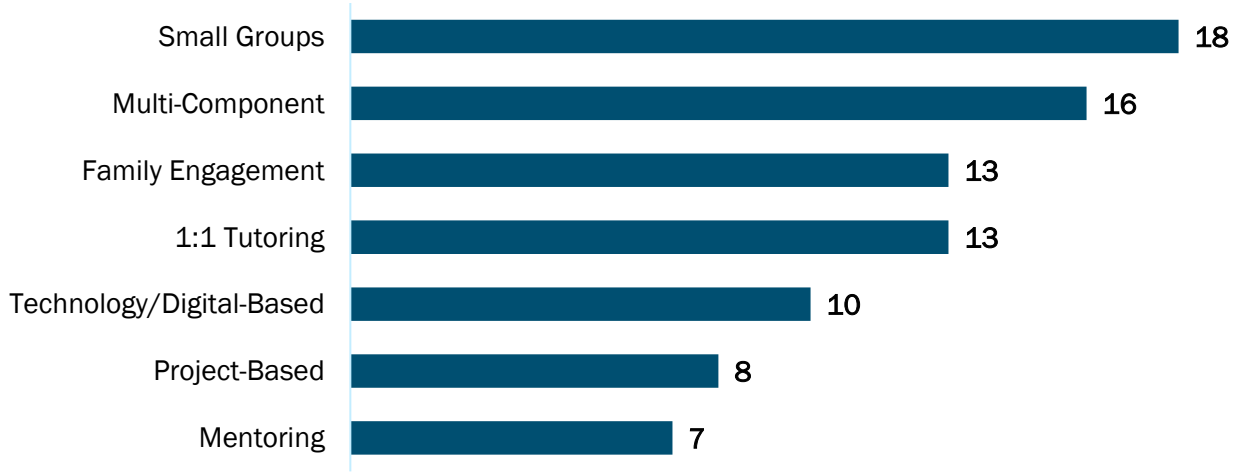
Programs frequently combined multiple methods, and no single delivery approach emerged as the standard across the reviewed resources. Delivery approaches varied based on participant needs, literacy goals, staffing capacity, setting, and available resources. **Exhibit 5** summarizes how the identified approaches were used, while **Exhibit 6** shows how frequently each appeared across the 31 intervention resources.



Exhibit 5. Program Design and Delivery Approaches Identified in the Environmental Scan

Delivery Approach	How the Approach Was Used
Small-group instruction	Provide targeted or differentiated literacy instruction to multiple youth at once, using defined group sizes, placement criteria, or recurring routines.[11,14,15,32,36]
One-on-one tutoring	Pair a participant with a trained adult or volunteer for individualized literacy instruction, practice, feedback, or progress monitoring.[11,14,17,21,34]
Mentoring approaches	Embed literacy support in sustained relationships with adults or peers; the primary contribution extends beyond instruction alone.[7,14,20,35]
Technology-supported literacy	Use digital programs to deliver literacy instruction or practice, or use technology to support planning, training, monitoring, and evaluation.[10,26,28,32]
Family and caregiver engagement	Extend literacy beyond program hours through shared reading, books and materials, caregiver learning opportunities, communication, or literacy events.[7,8,16,20,36]
Project-based literacy	Develop literacy through inquiry, creation, communication, or problem solving, including writing, storytelling, publication, presentations, or design challenges.[7,12,15,29,35]
Multi-component programs	Combine multiple literacy delivery approaches with other program components or supports, such as enrichment, family engagement, staff preparation, coaching, or progress monitoring.[9–12,14,20,34,36]

Exhibit 6. Methods of Delivering OST Literacy Interventions Across 31 Identified Resources



Small-Group Instruction

Small-group instruction was used for foundational skill development, comprehension, and differentiated support. K.L.I. was delivered after school to groups of 3-4 multilingual learners through recurring routines addressing reading, discussion, vocabulary, word study, sentence development, and inquiry.[15] Read Well, implemented through the Bridge Project, was delivered in grade-based groups using mastery-based instruction, differentiated pacing, and progress monitoring.[11] Roberts et al. provided instruction to groups of 3-6 students, while Y Readers used a maximum 1:8 ratio for differentiated instruction in phonics, vocabulary, and comprehension.[32,36] YMCA Reads also used

small-group intervention for students reading below grade level.[14]

One-on-One Tutoring

Tutoring approaches generally paired individualized literacy support with recurring contact from trained adults, although tutor qualifications and instructional structures varied. In Bayless et al., children met with trained adult volunteers for weekly 45-minute sessions focused on reading strategies and literacy confidence.[11] Lindo et al. used university students to provide twice-weekly, one-to-one instruction through a structured phonics and book-reading intervention.[21] YMCA Reads used trained staff and volunteers to provide one-to-one intervention alongside small-group instruction.[14] Reading Corps, described in Idaho's literacy plan, provided 20-minute research-based tutoring sessions to K–3 students.[17] SOAR United proposed one-to-one or very small-group high-impact tutoring delivered by trained Academic Guides.[34]

Mentoring Approaches

Mentoring approaches integrated literacy support within continuing relationships with adults or peers. In EdVenture, children worked consistently with adult study buddies who provided academic and reading support within sustained supportive relationships.[20] YMCA Reads explicitly combined intervention with mentoring from trained volunteers.[14] The Deep Center Young Author Project paired youth with authors, poets, and journalists who served as creative-writing mentors.[7] Wheeler et al. also identified peer, cross-age, college-student, and teen mentoring connected to reading and book discussions across Massachusetts 21st CCLC programs.[35]

Technology-Supported Literacy

Technology served both as a direct instructional mechanism and as implementation infrastructure. Pindiprolu et al evaluated Funnix and Headsprout, computer-based interventions that provided instruction and practice in phonemic awareness, phonics, fluency, vocabulary, and comprehension during three 30-minute afterschool sessions per week.[28] In Roberts et al., students received 30 minutes of computer-based instruction in addition to tutor-led small-group instruction.[32] Arly provided planning tools, training resources, implementation supports, and evaluation services through a technology-enabled platform.[10] Ohio 21st CCLC programs reported using platforms such as i-Ready, Lexia, IXL, STAR, Edmentum, and MobyMax, although the statewide report did not provide detailed implementation information for each platform.[26]

Family and Caregiver Engagement

Family engagement strategies often extend literacy opportunities beyond program hours or connect caregivers with books, activities, and program information. SAIL Reads distributed culturally relevant books, activities, and reading guides and encouraged children and caregivers to read together.[8] Y Readers encouraged home reading and distributed books to build home libraries.[36] ReWA offered caregiver workshops on literacy practices.[7] The Georgia Learning Academy provided weekly literacy sessions for students and parents, while CORE Kid City used a two-generational approach.[16] EdVenture used literacy workshops, family nights, events, and communication logs connecting the program, families, and schools.[20]

Project-Based Literacy Approaches

Project-based approaches used reading and writing as part of inquiry, creation, communication, or problem solving. STEM Stories integrated culturally relevant literature with engineering design challenges, project-based reading and writing, journals, sketch notes, and graphic notes.[29] Summer Brain Gain used discovery, creative expression, group work, presentations, and culminating projects within a theme-based summer curriculum.[12] K.L.I. asked students to build knowledge across texts and create presentations addressing guiding questions.[15] Programs in the Dollar General literacy brief incorporated journalism, creative writing, community storytelling, podcasts, and publication.[7] Wheeler et al. similarly documented books, performances, presentations, research, community investigations, and interdisciplinary projects.[35]



Multi-Component Literacy Programs

Several resources described literacy programs that combined multiple delivery approaches within an organized OST program. These programs incorporated two or more approaches described above, such as small-group instruction, one-on-one tutoring, mentoring, family and caregiver engagement, technology-supported instruction, or project-based approaches. Examples included BellXcel/Arly, YMCA Reads, Y Readers, SOAR United, Summer Brain Gain, EdVenture, and the Bridge Project.[9–12,14,20,34,36]

Across these programs, literacy instruction was frequently paired with complementary supports such as tutoring, mentoring, enrichment activities, family engagement, staff preparation, coaching, progress monitoring, and implementation infrastructure. BellXcel/Arly combined literacy instruction with professional development, coaching, planning tools, enrichment, social-emotional learning, evaluation, and program-quality supports.[10] YMCA Reads, Y Readers, and SOAR United combined literacy instruction with differentiated or individualized support and defined staffing or implementation expectations.[14,34,36] The Bridge Project paired Read Well with tutoring and book distribution, while Summer Brain Gain and EdVenture embedded literacy within broader enrichment, youth-development, and summer-learning experiences.[11,12,20]

Dosage and Participant Exposure

Program Dosage and Duration

The scan did not identify a single recommended dosage, attendance threshold, or program schedule for OST literacy programming. Twenty-four of the 34 resources reported some information about program dosage or duration. However, the information reported varied considerably and included measures such as program duration, session frequency and length, total instructional hours, number of sessions or lessons completed, and attendance.[3,5–9,11–13,15,16,21,23–26,28–32,34–36] **Exhibit 7** provides examples of the program duration and frequency described in the reviewed resources.

Exhibit 7. Examples of OST Literacy Program Dosage

Program or Study	Program Duration	Frequency or Session Length
Y Readers[36]	5-week summer program	Minimum 2.5 hours of literacy instruction per day
Summer Brain Gain[12]	6-week summer program	Fidelity benchmark included 3 or more hours per day; actual dosage varied by Club
Georgia Learning Academy[16]	6-8 weeks	Weekly student and parent sessions
Knowledge, Language, and Structured Inquiry (K.L.I.)[15]	Approximately 17 instructional hours per module	1-hour sessions twice weekly after school
Pindiprolu et al.[28]	Approximately 5 months	Three 30-minute sessions per week
Lindo et al.[21]	One school year	Twice weekly, 25-45 minutes per session; approximately 15-19 total instructional hours
Bridge Project / Read Well[11]	School year, with summer programming also offered	Read Well: 45 minutes 3 times per week during the school year and 30 minutes 4 times per week during summer; tutoring: 45 minutes weekly during the school year
Roberts et al.[32]	November-May	60 minutes per day, 4-5 days per week
SOAR United[34]	18 weeks in the current program; 40 weeks per year proposed for scale-up	45-minute sessions 3-4 days per week



Participant Exposure

Participant exposure emerged as an important consideration across multiple resources. Some evaluations reported stronger outcomes among participants with greater exposure to programming. A statewide Indiana evaluation found that students attending programs for 90 days or more were more likely to earn a B or higher in English language arts than students attending fewer than 30 days.[6] In a longitudinal study of 21st CCLC programs, Naftzger et al. found that higher levels of attendance were associated with growth in engagement in learning, self-regulation, and leadership, with each additional 100 hours of participation associated with measurable gains in several outcomes.[23]

Other studies demonstrated differences between the amount of programming offered and the amount participants actually received. Pindiprolu et al. offered three sessions per week across approximately five months, but mean attendance was 61% for Headsprout and 63% for Funnix.[28] In Roberts et al., participants assigned to treatment attended an average of 44.55 of approximately 90 possible sessions, and 16.1% attended no sessions; the authors identified absenteeism as a study limitation.[32] In the STEM-literacy pilot evaluated by Pinnell et al., attendance declined substantially over the course of the 28-week program, and the authors identified inconsistent participation as an important limitation when interpreting findings.[29]

Evidence of Effectiveness

Among the 31 resources addressing OST literacy interventions, 22 reported positive outcomes,[3,5–11,13,16,19–21,23,25,26,28–30,34,36] one reported mixed findings,[12] one reported no significant effect,[32] and seven did not report an outcome. The four reviews or compilations all reported positive findings.[6,10,25,30]

Although positive findings predominated, the strength of the underlying evidence varied considerably. Most of the evidence came from program reports, descriptive evaluations, reviews, or compilations rather than rigorous controlled evaluations. Notably, the mixed and no-effect findings came from two of the most rigorous randomized controlled studies in the scan. As a result, the evidence base provides stronger support for identifying promising approaches than for determining which intervention, curriculum, or delivery model is most effective.

These findings should not be interpreted to mean that all identified programs are effective. Rather, they highlight the importance of considering the strength of the underlying evidence when interpreting reported outcomes.

Evaluation and Measurement

Twenty-six resources addressed instruments and approaches used to measure literacy outcomes in OST settings. Measures varied considerably, but school- or state-administered assessments and other measures commonly used in school settings appeared the most frequently. Exhibit 8 summarizes the literacy measures most identified across the reviewed resources and provides a brief description of each.

Most measures identified in the scan were not developed specifically for OST literacy programs. Instead, programs commonly relied on existing reading assessments, benchmark tools, and school performance measures. No single assessment emerged as the standard for OST literacy programming.



Exhibit 8. Literacy Measures Commonly Identified in OST Programs*

Measure	Description	# of Resources
School/State Standardized Reading Test	Reading achievement measured through state or other standardized assessments	10[3,4,6,7,13,19,26,27,30,33]
School Reading Grades	School-based measures of students' performance in reading or English language arts	8[3–7,20,26,31]
DIBELS[51]	Brief measures of literacy skills used for benchmark assessment and progress monitoring	7[10,13,21,23,27,28,31]
STAR Reading[52]	Reading assessment measuring overall reading achievement and comprehension	7[9,12,25–27,29,34]
NWEA MAP Growth[53]	Computer-adaptive assessment measuring reading achievement and growth over time	6[6,10,13,16,26,27]
i-Ready[54]	Adaptive assessment providing information about reading performance and areas of instructional need	5[10,13,26,27,34]

**Less frequently identified measures included Woodcock published tests (n=3), DRA/DRA2 (n=2), and several measures identified in a single resource, including the Slosson Oral Reading Test, San Diego Quick Assessment, Advanced Phonics Skills Test (APST-XL), Peabody Picture Vocabulary Test, Exact Path (Edmentum), AIMSweb, TOSREC, and Gates-MacGinitie Reading Test (GM-RT).*

How States are Supporting OST Literacy Programs

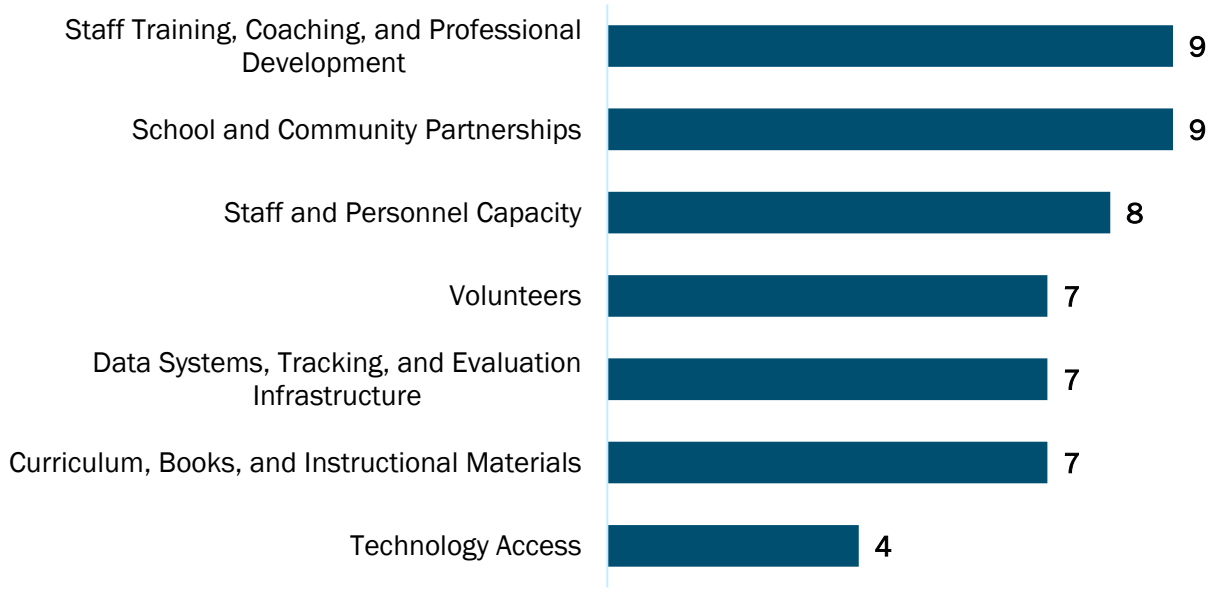
Twelve resources described implementation of youth literacy programming at the state level.[4–6,8,16,18,19,25–27,33,34] The resources did not identify a single state model. Instead, they described combinations of partnerships, personnel, training, instructional resources, data systems, volunteers, technology, and grant funding used to support implementation across varied OST settings. Two of these resources were compilations of programs from multiple states.[4,6] The remaining ten resources described single-state programming, including Mississippi,[5,34] Alabama,[8] Georgia,[16] Indiana,[18] Kentucky,[19] New York,[25] Ohio,[26,27] and Texas.[33]

Implementation Infrastructure

Implementation infrastructure refers to the structures and supports used to establish, operate, monitor, and improve OST literacy programming. **Exhibit 9** summarizes the seven supports identified across the reviewed resources. The accompanying subsections describe how these supports were used in state OST literacy programs. Counts indicate how often a resource explicitly described a support, not its importance or effectiveness.



Exhibit 9. Implementation Infrastructure Described in 12 State and National Resources



**Resources could describe more than one implementation support.*

Staff Training, Coaching, and Professional Development
Several resources described ongoing training, coaching and professional development to support program implementation. Kentucky included professional development training and site-based support activities, Texas ACE provides ongoing coaching and access to training resources, and the Mississippi SOAR program included formal curriculum training, online coursework, monthly support sessions, and virtual office hours. Mississippi found an association between higher levels of state-provided staff training and stronger attendance and academic outcomes, although the nonexperimental design does not establish causation.[5,19,33,34]

School and Community Partnerships
Partnerships linked OST providers with schools, libraries, higher education institutions, foundations, businesses, and community organizations to support program delivery. Kentucky reported 1,341 community partners, averaging eight per site. Georgia, New York, Texas ACE, and Mississippi's SOAR described multi-organization structures used to provide staff, materials, training, facilities, funding, or access to participants.[16,19,25,33,34]

Staffing and Personnel Capacity
Programs relied on school-day teachers, literacy specialists, tutors, OST staff, college students, community educators, and other personnel to deliver and support programming. Some resources emphasized the number or types of staff involved and their designated responsibilities, while others described qualifications such as credentials or literacy expertise. Kentucky reported 1,075 paid school-day teachers, Georgia used teaching candidates to deliver literacy lessons, and Ohio identified designated personnel for tracking and reporting. Indiana and Mississippi's SOAR also described workforce credentials or literacy-related qualifications for OST staff and tutors.[16,18,19,27,34]

Volunteers
Volunteers were identified separately from staffing and personnel capacity because they were typically described as supplemental support rather than core program staff. Across the reviewed resources, volunteers supported tutoring, book distribution, reading activities, and program operations. However, the resources provided limited information about volunteer qualifications, preparation, supervision, retention, or the extent to which volunteers served in ongoing instructional



roles.[4,8,16,19,25–27,34]

Data Systems, Tracking, and Evaluation Infrastructure
Kentucky, Ohio, and Mississippi's SOAR provided the clearest examples of systems for monitoring participation, implementation, and outcomes. Kentucky combined administrative, assessment, participation, behavioral, and survey data. Ohio established common tracking and evaluation requirements and documented program changes made in response to findings. Mississippi's SOAR integrated tutor-management data, reading assessments, fidelity monitoring, implementation research, impact evaluation, and planned cost analysis.[19,26,27,34]

Curriculum, Books, and Instructional Materials
Resources described packaged curricula, books, reading guides, literacy kits, lesson plans, hands-on learning materials, and home-literacy resources. Examples included Heggerty in Ohio, Ready Readers and BellXcel in New York, Voyager Passport and SPARK/Future Forward in SOAR, and culturally relevant books with reading guides in Alabama (See "Literacy Curriculum and Content" section above for more details).[8,25,26,34]

Technology Access
Resources described technology being used for student instruction, staff training, data management, and communication. Georgia and Mississippi's SOAR United program also identified broadband access or barriers as implementation considerations.[6,16,26,34]

Funding and Cost Information

Funding information was sparse and usually described funding sources rather than delivery costs. Examples included a $9.5 million OST literacy investment in Indiana, New York Literacy Champions grants of up to $10,000, a $44 million federal allocation for Ohio 21st CCLC programming, Alabama Summer and After-School Program funding for SAIL Reads and proposed federal Education Innovation and Research funding for Mississippi's SOAR.[8,18,25,26,34]

Few resources reported literacy-specific costs, per-participant costs, or costs associated with staffing or delivery models. The 2024 Afterschool Alliance synthesis described broader American Rescue Plan investments in afterschool and summer programming, while SOAR proposed a future cost-effectiveness study. The reviewed resources therefore illustrate funding mechanisms but do not support reliable estimates of the cost to implement or scale OST literacy programming.[6,34]

Summary of State-Level Resources

Across the reviewed state-level resources, support for OST literacy extended beyond funding or curriculum selection. Statewide initiatives used combinations of partnerships, workforce supports, instructional resources, data and evaluation systems, technology, and other infrastructure to support implementation. Approaches varied considerably across states, and the scan did not identify a single state implementation model. Cost remained a notable evidence gap.



Evidence-Informed Framework for OST Literacy Programming



Evidence-Informed Framework for OST Literacy Programming

The preceding results describe the range of OST literacy approaches, measurement strategies, and state implementation supports identified through the environmental scan. Taken together, these findings show substantial variation in how OST literacy programs are designed, delivered, supported, and evaluated. No single curriculum, delivery model, dosage, assessment, or implementation approach emerged as the standard. Instead, the findings demonstrate that OST literacy programming involves a set of interconnected decisions that need to fit the program's goals, participants, setting, and capacity.

To organize these decisions, Altarum developed an evidence-informed framework with seven domains (**Exhibit 10**). The framework provides a consistent structure for considering the key elements of an OST literacy program without prescribing how those elements should be addressed. An accompanying application guide translates the framework into practical considerations for planning, delivery and monitoring, and evaluation and improvement (**Exhibit 11**). Together, the framework and application guide provide a common structure for program decision-making while preserving flexibility to tailor programming to local context, resources, and priorities.

Exhibit 10. Evidence-Informed Framework for Out-of-School-Time Literacy Programming



Framework Domains

The seven domains of the Evidence-Informed Framework for Out-of-School-Time Literacy Programming are closely connected and should be considered together. Decisions within one domain may affect the feasibility and effectiveness of decisions in others.

Population. Defines who the program intends to serve, including participant ages or grade levels, literacy strengths and needs, language-learning needs, and whether programming is universal or targeted.

Literacy Curriculum & Content. Identifies the literacy skills and content addressed, such as phonemic awareness, phonics, fluency, vocabulary, comprehension, or writing, as well as the curriculum, lessons, books, and activities used to address them.

Program Design & Delivery. Describes how literacy content is delivered, including tutoring, small-group instruction, mentoring, project-based learning, technology-supported instruction, family engagement, staffing arrangements, group structure, and scheduling.

Implementation Supports. Includes the staffing, training, coaching, partnerships, materials, technology, data capacity, and other resources needed to deliver and maintain the program.

Participation & Dosage. Defines the amount of programming offered and the amount participants actually receive, including program duration, session frequency and length, attendance, retention, and participant exposure.

Evaluation & Measurement. Establishes how the program will assess literacy outcomes, participation, dosage, and implementation, and how findings will be interpreted and used.

Continuous Improvement & Sustainability. Provides a process for reviewing information, making and documenting program adjustments, and determining what resources and conditions are needed to continue or expand effective programming.

Applying the Framework

Exhibit 11 translates the framework into an application guide, showing how each domain can be considered when programs plan, deliver and monitor, and evaluate and improve their literacy programming. Together, the exhibits are intended to help providers and funders consider the full program rather than making decisions about curriculum, implementation, participation, and evaluation in isolation.



Exhibit 11. Application Guide for OST Literacy Program Development, Implementation, and Improvement

Domain	Plan	Deliver & Monitor	Evaluate & Improve
Population	• Define ages or grade levels served. • Identify literacy strengths and needs, including language-learning needs. • Decide whether programming is universal or targeted.	• Track enrollment, participation, and retention. • Check whether the intended population is being reached. • Identify and respond to recruitment and participation barriers as they emerge.	• Describe the population served and baseline literacy needs. • Assess whether the intended population was reached. • Examine whether reach, participation, retention, or outcomes differed across relevant participant groups, and adjust recruitment or participation strategies as needed.
Literacy Curriculum & Content	• Define the literacy focus (phonemic awareness, phonics, fluency, vocabulary, comprehension, and/or writing). • Select curriculum, lessons, books, activities, or other literacy content aligned with program goals. Check alignment with participant needs, grade level, evidence, cost, and implementation requirements.	• Prepare staff to implement the selected curriculum, lessons, or literacy activities. Monitor whether planned literacy components are being delivered (e.g., phonics, vocabulary, comprehension, writing). • Document substantive adaptations such as changes to content, pacing, lesson sequence, instructional strategies, or delivery format.	• Assess whether the selected curriculum or literacy content was feasible to deliver in the OST setting. • Interpret outcomes in relation to content and participant exposure. • Retain, supplement, modify, or reconsider content as needed.
Program Design & Delivery	• Select delivery approaches (e.g., tutoring, small-group instruction, mentoring, project-based learning, technology-supported instruction). • Define staffing roles, group size, schedule, and relationship to school-day instruction. • Clarify how delivery approaches will be combined and sequenced.	• Monitor whether delivery approaches are being implemented as intended. • Track frequency, duration, group structure, staffing and participant exposure. • Document adaptations, participant responsiveness, and implementation challenges.	• Assess whether the selected delivery approaches were feasible and acceptable in the OST setting. • Compare delivery across sites, groups or delivery models. • Examine whether delivery approaches help explain participation, implementation or outcomes.
Implementation Supports	• Identify staffing, training, partnerships, materials, technology, and data capacity. • Clarify responsibilities and resource commitments. • Plan family or caregiver engagement	• Provide and track planned supports. • Monitor staffing, training, coaching, materials, partnerships, and data capacity. • Address implementation barriers as they	• Assess whether supports were available, used, and sufficient to deliver the program and meet its goals. • Identify implementation barriers and

Domain	Plan	Deliver & Monitor	Evaluate & Improve
	supports.	emerge.	facilitators. • Strengthen, simplify, continue, or discontinue supports as needed.
Participation & Dosage	• Specify intended program duration, session frequency, and session length. • Define expected attendance and participant exposure. • Plan how attendance, retention, and exposure will be tracked.	• Track sessions offered, delivered, and cancelled. • Track attendance, retention, and participant-level exposure. • Document differences between planned and actual dosage.	• Compare intended dosage, delivery, and participant exposure. • Interpret outcomes in light of participation. • Examine participation patterns and consider whether they may help explain implementation or outcome findings.
Evaluation & Measurement	• Define evaluation questions, intended users, and how findings will be used. • Select literacy outcome measures aligned with literacy goals, participant age and skills, and available data. • Identify participation, dosage, and implementation measures needed to interpret findings (e.g., attendance, participant exposure, curriculum delivery, implementation fidelity, or staffing supports).	• Collect data consistently. • Monitor burden, completeness, and quality. • Document implementation, adaptations, and exposure.	• Interpret findings in light of measure quality, study design, missing data, implementation, and exposure. • Distinguish descriptive findings from evidence of effectiveness. • Identify evidence gaps and evaluation improvements.
Continuous Improvement & Sustainability	• Set a schedule for reviewing information. • Define who will participate and how decisions will be documented. • Identify resources likely to be needed over time.	• Review participation, implementation, and outcome information. • Make documented, proportionate adjustments. • Preserve core program functions while testing improvements.	• Document changes and what happened afterward. • Decide what should be sustained, modified, or discontinued. • Identify conditions and knowledge-transfer needs for continuation or scale-up.

Discussion and Conclusion



Major Findings

The environmental scan found substantial variation in who OST literacy programs served, what literacy programs taught, how literacy content was delivered, the amount of programming offered and received, and how programs were supported and evaluated. No single curriculum, delivery approach, dosage, assessment, or state implementation model emerged as the standard. Instead, the findings demonstrated that OST literacy programming reflects a combination of decisions about program content, delivery, implementation, participation, and evaluation.

The evidence base identified a range of promising approaches but provided limited support for determining which literacy model was most effective. Most resources reported positive findings, but the strength of the underlying evidence varied considerably, and the mixed and no-effect findings came from rigorous controlled studies. The predominance of positive findings should therefore be interpreted in the context of the strength and design of the available evidence.

Implications for the State Alliance

Support Flexible but Clearly Defined Literacy Models

The scan does not support prescribing a single curriculum or delivery model across OST sites. Local providers differ in the populations they serve, the literacy needs they address, their staffing and partnerships, the time available for programming, and their access to instructional and evaluation resources. Allowing flexibility can help providers select approaches that fit those conditions.

Flexibility should not mean that literacy programming remains loosely defined. Programs should identify the population they intend to serve, the literacy skills or outcomes they intend to address, the curriculum or content they will use, and how that content will be delivered. Programs embedding literacy within mentoring, STEM, arts, project-based learning, family engagement, or other enrichment activities should also explain the intended literacy contribution. This would preserve the strengths of OST programming while making literacy activities specific enough to implement and assess.

Use the Framework to Guide Program Planning and Review

The Evidence-Informed Framework for OST Literacy Programming provides a structure that the State Alliance can use to organize program expectations with local YMCAs without prescribing a single model. It may be useful for developing program guidance, reviewing proposed literacy programs, supporting implementation, and structuring conversations about program improvement.

YMCAs and corresponding program sites could be asked to describe decisions across the framework's seven domains. Using common domains would allow programs to remain locally responsive while giving the State Alliance a consistent way to understand and compare program plans. It would also shift attention from whether a provider has selected a named curriculum alone to whether the overall program is sufficiently defined, supported, and measurable.

Clarify Evaluation and Measurement Expectations

The environmental scan identified several tools used to measure literacy outcomes, but no single assessment emerged as the standard across OST programs. Many reviewed resources relied on existing school or state reading assessments, benchmark tools, and reading or English language arts grades. This suggests that access to school data could be an important consideration for Michigan, particularly if the State Alliance wants measures that are already collected and can be interpreted consistently across programs.

The State Alliance could clarify how literacy outcomes should be measured across funded programs, including whether programs will use common measures and whether existing school assessment data can be accessed and used. They could also establish consistent expectations for tracking information needed to interpret those outcomes, such as attendance, participant exposure, and



implementation of planned program components. Clear expectations would make it easier to interpret findings within individual programs and, where appropriate, across programs.

Define State and Provider Responsibilities for Implementation Support

The state-level findings suggest that implementation support can be organized across multiple levels. Individual providers may be responsible for delivering programming, supervising staff, tracking participation, and documenting implementation, while the State Alliance or other intermediaries could coordinate supports that are difficult for individual providers to develop independently. These could include shared professional development, curriculum guidance, data expectations, evaluation resources, technical assistance, partnership development, or access to instructional materials and technology.

Clearly defining which supports will be coordinated centrally and which will remain the responsibility of providers could help align program expectations with available capacity. Because the reviewed resources provided limited cost information, Michigan may also need to monitor the resources required to implement and sustain these supports as its approach develops.

What the Scan Does Not Tell Us

The scan does not support direct comparisons across curricula, delivery approaches, or program models. Programs often combined multiple components, and most evaluations were not designed to isolate the contribution of a curriculum, tutoring approach, staffing model, family-engagement strategy, or other individual program element. Positive findings therefore should not be interpreted as evidence that one component caused the reported outcomes.

Information about cost and implementation burden was also limited. Although some resources identified curriculum prices, grant amounts, or broader program investments, there was little information on the cost of staffing, training, materials, technology, data systems, partnerships, or evaluation. The scan therefore cannot provide reliable estimates of the resources required to implement or scale a comprehensive OST literacy program.

The evidence base focused primarily on elementary-age participants, with fewer resources addressing middle school literacy. English learners and students requiring additional literacy support were represented, although approaches to defining and supporting these populations varied across resources. The applicability of some findings may therefore vary across participant populations and literacy needs.

Conclusion

This environmental scan identified a wide range of approaches to supporting literacy in OST settings, with no single curriculum, delivery model, dosage, assessment, or state implementation approach emerging as the standard. The findings instead point to the importance of aligning literacy content, delivery, implementation supports, participation, and evaluation with participant needs and program goals.

The Evidence-Informed Framework for OST Literacy Programming brings these interconnected considerations together in a practical structure for program planning, implementation, evaluation, and continuous improvement while preserving flexibility across diverse OST settings.



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Appendix. Detailed Search Strategy for OST Literacy Program Environmental Scan

Key Sources and Databases

Peer Reviewed Literature: ERIC (eric.ed.gov) from the Institute of Education Sciences within the U.S. Department of Education

Grey Literature:

- Federal and Government:
  - U.S. Department of Education
  - Institute of Education Sciences (IES) / What Works Clearinghouse
- Research and Policy Organizations:
  - Wallace Foundation
  - Literacy-Focused Organizations:
  - Reading Rockets (WETA / American Reading Coalition)
  - International Literacy Association
- Out-of-School Time and Youth Development:
  - Michigan Afterschool Partnership
  - Michigan Department of Lifelong Education, Advancement, and Potential (MiLEAP)
  - Afterschool Alliance (including America After 3PM)
  - National Institute of Out of School Time
  - YMCA of the USA
  - National AfterSchool Association (NAA)
- State education agency websites (targeted, not all 50 states; example states include Alabama, Kentucky, and Florida)
- Boys and Girls Club of America
- Curriculum Providers (Research Question 1 only):
  - BellXcel, Arly
  - Lit Camp – Scholastic
  - 4 Blocks Curriculum
  - Kidz Lit
  - Edmentum
  - Mizzen

Search Strategy

ERIC Search

A single combined search was conducted in ERIC (eric.ed.gov) to address Research Questions 1 and 2. ERIC was selected as the primary database because it is the authoritative source for education research and indexes literature on literacy programs, assessment, and OST settings more comprehensively than biomedical databases. The search uses ERIC Descriptors (controlled vocabulary) combined with keyword searches across three concept clusters: (1) out-of-school time setting, (2) literacy and reading, and (3) evaluation, program models or implementation. Results were limited to “Since 2017”, reflecting the past 10 years of evidence in this area. There was no option to indicate a specific year for inclusion.



ERIC Descriptors:

- After School Programs
- Literacy
- Reading Achievement
- Reading Instruction
- Elementary School Students
- Middle School Students
- High School Students

Search String:

TI:("after school" OR "afterschool" OR "out-of-school time") AND (DE"Literacy" OR DE"Reading Achievement" OR DE"Reading Instruction" OR "literacy" OR "reading") AND ("framework" OR "model" OR "best practice" OR "instrument" OR "measure" OR "scale" OR "assessment" OR "evaluation" OR "screener" OR "screening" OR "benchmark" OR “program” or “curriculum” OR “implementation” OR “instruction”) AND (DE"Elementary School Students" OR DE"Middle School Students" OR DE"High School Students")

Filters: Since 2017; Peer-reviewed

Grey Literature Search

The grey literature search was conducted using a structured site-by-site approach, applying consistent search terms across each source listed above. Searches combined keywords relevant to each research question. All three research questions on grey literature search. The following terms were used in combination across sources:

- "youth literacy program" + “afterschool”
- "youth literacy program" + "summer camp" or "summer program"
- “youth literacy evaluation” + “afterschool” or “out-of-school time” “literacy program evaluation” + “out-of-school time” or “afterschool”
- “literacy assessment instrument” + “afterschool” or “out-of-school time”
- “youth literacy” + “best practices” or “implementation”
- “youth literacy” + “state program” or “state approach”
- “literacy curriculum cost” or “literacy program cost” + “out-of-school time” or “afterschool”
- “summer slide” OR “learning loss” OR “learning recovery”

Search terms, sites visited, dates of access, and results were documented in a search log throughout the data collection process to support transparency and reproducibility.

