



MISSOURI COMPREHENSIVE LITERACY STATE DEVELOPMENT PROGRAM

Grant Proposal 2020

Missouri Department of Elementary and Secondary Education (MO-DESE)

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Introduction

In August of 2019, the Office of College and Career Readiness of the Missouri Department of Elementary and Secondary Education (MO-DESE) released the [*K-12 Missouri State Literacy Plan*](#), a revision of the state’s previous literacy plan, to provide stakeholders with updated research and pedagogy. This new literacy plan is an evidence-based resource for administrators and teachers with information for parents and caregivers along the K-12 continuum. It provides information on integrating literacy instruction with the 2016 Missouri Learning Standards and current knowledge about literacy development to guide districts in developing their own comprehensive literacy plan to meet the needs of their students.

The state literacy plan uses current research to lay out a framework of five components: Leadership and Sustainability; Standards-based Curriculum; Intentional Instruction, Intervention, and Enrichment; Assessment; and Partnerships. Missouri’s proposal for the Comprehensive Literacy State Development Program grant aligns with these five components. Interwoven with this plan is MO-DESE’s belief that implementation of the science of reading—explicit phonics instruction, reading practice with varied texts to develop fluency, and development of vocabulary and content knowledge to improve reading comprehension (Riley, 2020)—is critical for reading success. During the fall of 2019, MO-DESE English Language Arts (ELA) staff from the Office of College and Career Readiness, along with assistance from ELA leads from Missouri’s 11 Regional Professional Development Centers (RPDC), conducted a roll-out of the new literacy plan. These sessions at the state’s RPDC’s reached over 400 educators from nearly 200 districts in all regions of the state. Following these sessions, many educators contacted MO-DESE, eager for assistance in developing and implementing district- and school-level plans to address their needs. MO-DESE is currently working on a project with RPDC literacy partners to produce a

series of webinars that will be available to all educators as they develop the five components of their district or school literacy plans, providing a greater degree of explicit guidance for reading instruction. Adhering to the requirements of this grant, MO-DESE, using the science of reading, will review and revise its literacy plan to better meet the needs of diverse stakeholders.

Missouri is a geographically diverse, mostly rural state. Located on the west and east edges of Missouri are the large metropolitan areas of Kansas City and St. Louis. With the exception of a few small cities (e.g., Springfield, Columbia, Cape Girardeau, St. Joseph, Joplin, and Jefferson City), the remainder of the state is rural. Missouri's 2,275 public schools (in 518 districts) and 78 charter schools serve 881,352 students (data from 2019). MO-DESE's mission, "Providing Access to Opportunity," is the impetus for Missouri's application for the CLSD grant. Funding from this grant will help provide the support needed in schools that serve some of the state's most underserved and vulnerable urban and rural students, students who need a solid foundation in literacy to have access to opportunity.

Need for the Project

As MO-DESE has watched significant ELA achievement gaps continue along socio-economic lines for students in both urban and rural areas, especially in schools with large populations of historically marginalized students, it became imperative that steps be taken to provide long-term supports to these schools and their communities to ensure that students receive better opportunities for literacy instruction. Missouri is a state in which districts have substantial local control, including curriculum design and materials selection. The 2019 *K-12 Missouri State Literacy Plan* provides a research-based framework for districts and schools to use in developing their own literacy plans without being prescriptive regarding curriculum and materials. As district and school leaders continued expressing interest in this new plan and in receiving

additional supports from MO-DESE, SEA leaders met with staff from MO-DESE's Office of College and Career Readiness, Office of Quality Schools (includes the section responsible for administering early childhood education programs), Office of Educator Quality, and Office of Special Education to begin developing a plan to provide such supports based on the science of reading. The CLSD grant provides an excellent opportunity for MO-DESE to merge the work of these offices in making research-based supports available to help students and communities.

Missouri qualifies for all three Competitive Preference Priorities in the CLSD Program grant:

- (1) Applications from New Potential Grantees – Andy Martin, MO-DESE coordinator of financial and administrative services, has verified that Missouri has not had an active discretionary grant under this program, including through membership in a group application submitted in accordance with 34 CFR 75.127-75.129, in the five years before the deadline date for submission of applications under this program.
- (2) Spurring Investment in Qualified Opportunity Zones – The competitive preference priorities MO-DESE will include in the application process for subgrantees offer a significant number of points for schools serving students in Qualified Opportunity Zones (see Appendix A).
- (3) Promoting Innovation and Efficiency, Streamlining Education with an Increased Focus on Improving Student Outcomes and Providing Increased Value to Students and Taxpayers – As described in subsequent sections of this proposal, funding from this grant will allow MO-DESE ELA staff to leverage current partnerships with established statewide networks to provide research-based, high-quality professional development while teaming with MO-DESE staff from early learning, special education, and higher education to serve students and educators in subgrantee LEA's.

To begin the process of determining schools in greatest need of support, MO-DESE developed a list of Comprehensive Schools, those which are among the lowest five percent of schools receiving Title I funds. The process for determining these schools is based on four factors used to arrive at an Index Score, with the heaviest weighting for Academic Achievement:

1. Academic Achievement – combined ELA and math performance on the Missouri Assessment Program Performance Index
2. Academic Growth – Growth Value Added Model measure of data for grades 3-8 (elementary and middle schools) or graduation rate (high schools)
3. English Language Proficiency – progress to proficiency and AEP attainment
4. Attendance

MO-DESE has identified 64 Comprehensive Schools in compliance with ESSA requirements from among its nine regions; almost 75 percent of these schools are from the St. Louis and Kansas City regions. Data in Table 1 show the percentage range of students in each region scoring below Proficient (Missouri's four levels are Below Basic, Basic, Proficient, Advanced) on the 2019 Grade-Level and End-of-Course assessments for English language arts. Table 1 also shows the percentage range of students in each region who qualify for the Free and Reduced-Price Lunch program. We can draw the conclusion from this table that Missouri students in impoverished areas are in need of supports in literacy, supports that the CLSD grant can provide. Tables 2-5 provide additional evidence indicating a correlation between subgroup populations and low literacy scores in Missouri as a whole.

Table 1: Data from 2019 Missouri Assessment Program Pertaining to Comprehensive Schools in MO-DESE’s Nine Regions

Region	Number of Schools Identified as Comprehensive	Percentage Range of Students Scoring Below Proficient on the 2019 Missouri Assessment Program ELA Exams Grades 3-8 and English II (State Average Percentage of Students Scoring Below Proficient: 51.3)	Percentage Range of Students Eligible for Free or Reduced Lunch Who Participated in the 2019 Missouri Assessment Program ELA Exams Grades 3-8 and English II
Northwest	4 (Students in Grades 3-8 and English II)	33.0-86.1	46.4-97.2
Northeast	0		
Kansas City	14 (Students in Grades 3-8 and English II)	55.5-97.7	All Schools 100.0
Central	1 (Students in Grades 7-8 and English II)	50.0-89.2	100.0
Heart of Missouri	1 (Students in Grades 3-5)	78.0-80.0	100.0
St. Louis	32 (Students in Grades 3-8 and English II)	56.5-100.0 (Six schools had at least one cohort in which all students scored below Proficient)	65.7-100.0 (24 schools had 100% eligibility)
Southwest	6 (Students in Grades 3-8 and English II)	48.4-83.0	62.4-89.9
South Central	0		
Southeast	9 (Students in grades 5-8 and English II)	28.6-79.0	57.3-100.0 (4 schools had 100% eligibility)

Appendix A provides a list of Missouri's Qualified Opportunity Zones along with a map showing the locations of the zones. The majority of our Comprehensive Schools, and, most likely, our subgrantees, will come from QOZs in Kansas City, St. Louis City, northern St. Louis County, Springfield, and counties in Missouri's southeastern corner. The information in Table 1 and Appendix A, along with additional data from our state ELA assessments, will help MO-DESE identify potential LEA's for our subgrant program. At this time, MO-DESE does not have data from a literacy needs assessment as the state has not yet conducted such as assessment; however, this grant proposal includes a needs assessment in the 2020-21 school year based on MO-DESE's recently developed Literacy Needs Assessment Framework (included as an attachment with this grant application).

The vast majority of schools listed in Table 1, in addition to educating students in highly impoverished communities, educate mostly minority students. For example, St. Louis City's population in 2019 was 45.9 percent black (United States Census Bureau); most of the schools from the St. Louis region in Table 1 are from the northern half of the city and stretching into northern St. Louis County, where the percentage of black residents is 94% (World Population Review). Table 2 below shows Missouri's achievement gap between black students and those of other races. (No state data for birth-grade 2 is available.) Tables 2 through 5 show the achievement gaps in literacy for each of the groups that this grant proposal plans to support. Table 4 shows the gap for English Language Learners (ELLs), a population that has grown over 1000% in the last 30 years from 2,787 in 1988 to 38,925 in 2018.

Table 2: Percentage of Students Scoring Below Proficient by Race/Ethnicity
MAP 2019 ELA

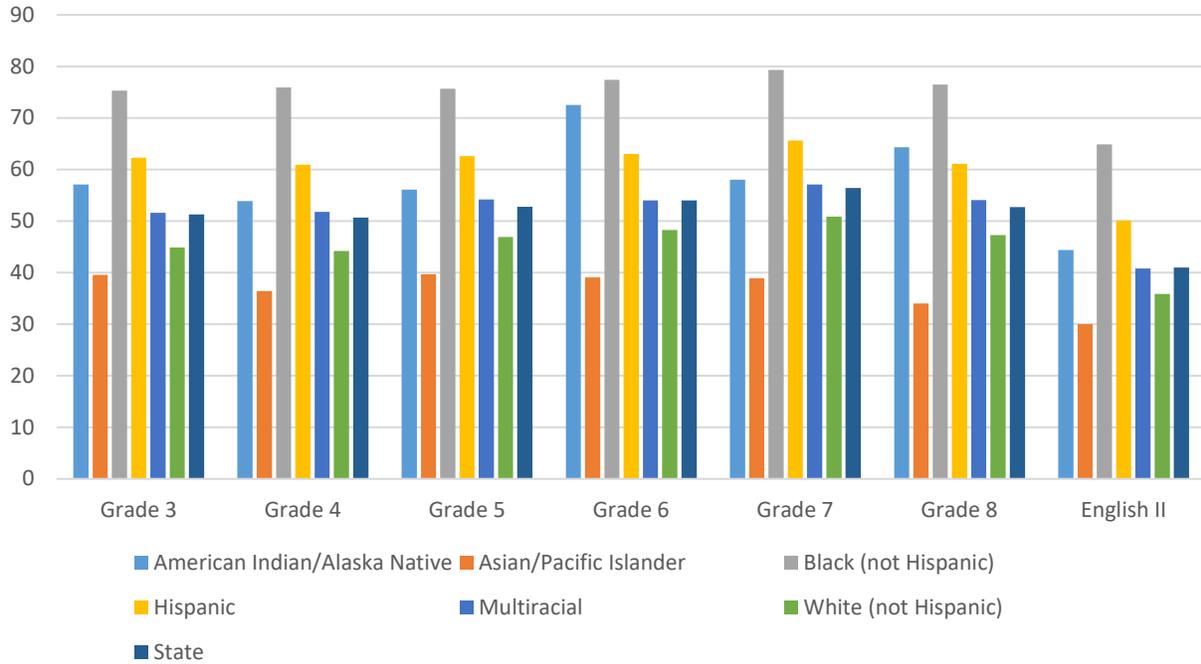


Table 3: Percentage of FRL Students Scoring Below Proficient
MAP 2019 ELA

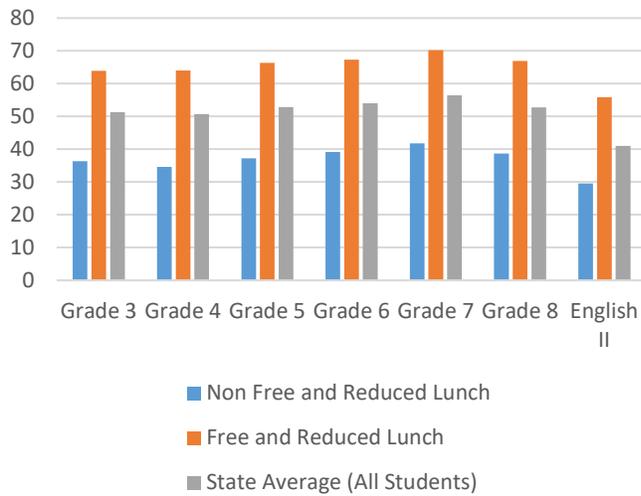
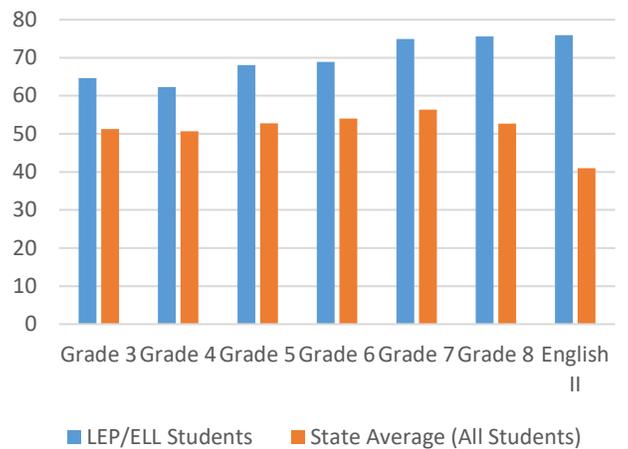
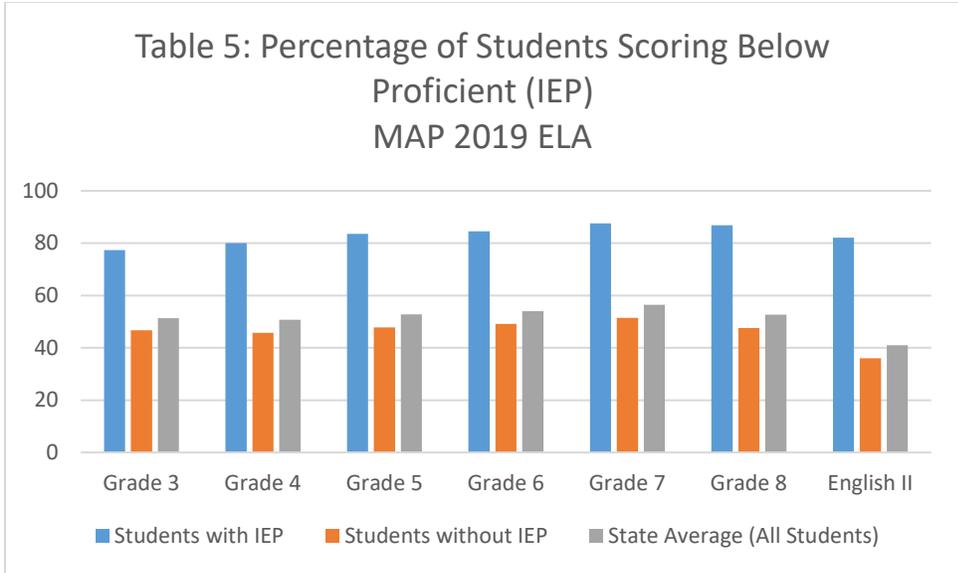


Table 4: Percentage of LEP/ELL Students Scoring Below Proficient
MAP 2019 ELA





Addressing these achievement gaps is a priority for MO-DESE’s ELA staff—two fulltime employees responsible for coordinating professional development for educators, developing and reviewing state-level assessments, coordinating projects for school libraries, and overseeing literacy improvement projects. Grant funding will leverage partnerships to provide intensive, targeted professional development and oversee literacy improvement projects with subgrantees, allowing the two ELA FTEs to continue statewide initiatives at the same time.

Adding to our need is a gradual reduction in funding for MO-DESE’s Missouri Preschool Program, a competitive bid or grant opportunity (priority to bidders proposing to serve children who qualify for free/reduced-price lunch or for private providers through DSS child care subsidy) to expand high-quality early care and education programs for children who are one or two years from kindergarten eligibility. Funding from the CLSD grant will allow MO-DESE ELA staff to leverage current partnerships to provide professional development and materials while teaming with MO-DESE staff from early learning, special education, and higher education to achieve the following with the LEAs we will serve through subgrants:

1. Implement practices and opportunities supporting educators, children, and families.
2. Systematically accelerate literacy achievement from birth through grade 12.

Quality of the Project Design

Missouri's Vision for the Project

The CLSD grant is an opportunity to bring equity and resources to students, educators, and families in underserved areas. It is essential that the five years of services we bring to these schools and communities be aligned with Missouri's ESSA Plan, which requires the following of Comprehensive Schools:

- Leadership (all Comprehensive Schools must participate in the Missouri Leadership Development System)
- Collaborative Culture and Climate (many identified buildings are participating in District Continuous Improvement or one of its predecessors)
- Effective Teaching and Learning
- Data-based Decision Making
- Alignment of Standards and Curriculum

Our proposed project, explained in detail below, is relevant to all five of these requirements.

Project Design

Goals – Recognizing the roles of multiple stakeholders in improving literacy among children in impoverished, high-need schools, the following three goals will steer the direction of MO-DESE's work with their partners and the grant.

1. Build capacity of LEA leaders in 80 schools to develop, implement, and maintain high-quality, evidence-based literacy plans with the potential to support the subgrantee schools in

their districts and leverage this capacity to better support all schools in their districts through what is learned during this five-year process.

2. Prepare educators (pre-service teachers in participating institutions of higher education, early childhood education teachers in 20 subgrantees' communities, K-12 teachers in 80 subgrantees' schools) to meet the literacy instruction needs of all students charged to them.
3. Increase literacy outcomes for all children (approximately 35,000) served by subgrantee, high-need schools.

Objectives – The following objectives, all under the umbrella of the three goals above, align to at least one of the five components of the *K-12 Missouri State Literacy Plan*.

Objective 1: Identify and document assets of the preK-12 students, teachers, school, and district.

Objective 2: Identify and document the needs of the preK-12 students, teachers, school, and district.

Objective 3: Increase the literacy outcomes for birth-preK children in 20 high-needs communities.

Objective 4: Increase the foundational literacy outcomes for children in grades K-3.

Objective 5: Increase preK-12 educators' frequency of evidence-based critical literacy instructional practices.

Objective 6: Increase educators' sense of efficacy for literacy instruction.

Objective 7: Build preK-12 literacy leadership in evidence-based literacy.

Objective 8: Increase the literacy outcomes for children in grades 3-12 at 80 high-need schools.

Objective 9: Identify, document, and share evidence-based literacy instructional strategies that are interdisciplinary and discipline specific, as well as across development stages and age specific for preK-12 classrooms.

Objective 10: Integrate evidence-based literacy instruction across the school curriculum.

Objective 11: Understand barriers, challenges, and successes in implementation of evidence-based literacy interventions.

Objective 12: Integrate evidence-based literacy instruction online resources across the state's teacher education programs.

Objective 13: Enrich teacher education through provision of on-demand professional learning resources.

Objective 14: Participants will understand the importance of designing evidence-based literacy instruction aligned to the Missouri Learning Standards.

Objective 15: Participants will be able to apply evidence-based literacy instruction to their contexts.

A detailed logic model (see Appendix B) provides details on how these objectives are to be met and measured through inputs, activities, outcomes, and assessment tools.

MO-DESE's partners in addressing and helping meet the objectives are Missouri Language and Literacies Center (MLLC), Missouri Writing Projects Network (MWPN), and the University of Missouri System (UMS) (these three entities referred to throughout the grant proposal as Show Me Literacies Collaborative, or SMLC). Providing a layer of intensive support in grades K-3 is our partner Missouri Reading Initiative (MRI).

Outcomes – MO-DESE will employ the services of external evaluator ACS Ventures to assist in ensuring that the agency’s goals, through the activities and services outlined in the grant proposal’s objectives, are met by measuring annual outcomes as presented in the logic model. MO-DESE believes that the use of an external evaluator will provide objective data and feedback for MO-DESE and grant partners to use in making timely, data-driven decisions in the best interest of stakeholders served by this grant.

In collaboration with MO-DESE, our partners created evidence review tables (see Appendix C) and implementation schedule tables (see Appendix D), providing details on review of the literature relevant to the project and on the implementation timeframe. Our proposal’s budget narrative, in combination with the evidence review tables and implementation schedule tables, show the extent to which the project will use grant funds for evidence-based activities.

Quality of the Management Plan

MO-DESE CLSD Program Implementation Leaders

MO-DESE has significant experience leading and monitoring programs similar in size and scale to the CLSD program. It has experience evaluating subgrant applications and monitoring the implementation of subgrant activities in LEAs and educational entities. Missouri will invest the skills and experience of full-time MO-DESE, LEA, and Institutions of Higher Education (IHE) professionals to ensure the success of the CLSD project. The CLSD implementation team will operate under the direction of **Lisa Sireno, Standards and Assessment Administrator** in MO-DESE’s Office of College and Career Readiness.

Key Roles

Lisa Scroggs, MO-DESE Assistant Director of English Language Arts

CLSD 6-12 and Higher Education. She will direct and manage the activities that target grades 6-12, pre-service and in-service teachers.

Debbie Jameson, MO-DESE Director of English Language Arts

CLSD Birth-5 Activities. She will direct and manage the activities that target birth-grade 5 teachers and ensure coordination of elementary and early childhood education literacy work.

Cammy Goucher, MO-DESE Director of English Language Development

Diverse Learners. She will advise and collaborate with the Show Me Literacies Collaborative and Missouri Reading Initiative to ensure that the needs of teachers of English learners and students with special needs are addressed.

Kim Stuckey, MO-DESE Director-Dyslexia Specialist

Struggling Readers. She will advise and collaborate with Show Me Literacies Collaborative and Missouri Reading Initiative to ensure that CLSD activities address needs of struggling readers while guiding LEA efforts to identify and serve students at risk for dyslexia or related disorders.

CLSD Director

To assist with implementation and project management, DESE will employ a project manager responsible for the day-to-day administration of this grant. The project manager's role will place emphasis on promoting the science of reading, managing the subgrant application and selection process, and ensuring collaboration and coordination among the project areas (birth-preK, K-5, 6-12, higher education). In addition to content knowledge, key qualifications for the project manager include team-building, organizational and leadership skills, and collaboration and continuous improvement expertise.

MO-DESE has identified LEA- and IHE-based specialists to assist in the implementation of the CLSD program activities outlined in the logic model:

- **Dr. Angie Zapata, Director for the Missouri Learning and Literacies Center**, will assist MO-DESE with birth-preK activities.
- **Dr. Amy Lannin, Director for the Missouri Writing Project**, and **Dr. Rebecca Haseltine, Director of Missouri Reading Initiative**, will assist MO-DESE with K-5 activities. Dr. Lannin will also assist MO-DESE with 6-12 activities.
- **Dr. Nancy Robb Singer, Chair of the Department of Educator Preparation & Leadership at the University of Missouri-St. Louis**, will assist MO-DESE with higher education activities.

Liaisons and Advisors: To ensure coordination of efforts and address Priority 3 by maximizing resources and streamlining education, MO-DESE has identified a liaison from each of the offices in its Division of Learning Services to advise the CLSD management team: **Jo Anne Ralston**, Early Learning Coordinator in the Office of Quality Schools, PDG B-5 Collaboration lead, and MO-DESE representative to the Coordinating Board for Early Childhood (Missouri's State Advisory Council on Early Childhood Education and Care); **Amber Castleman**, Core Data Coordinator in the Office of Data System Management; **Thea Scott/Ginger Henry**, Effective Practices Director/Coordinator in the Office of Special Education; and **Jim Masters**, Coordinator, Missouri Leadership Development System in the Office of Educator Quality.

The directors, coordinators, liaisons, and specialists named above will adhere to the implementation schedule in Appendix D. MO-DESE will expand its ad-hoc literacy advisory committee, creating a formal Literacy Advisory Committee to help inform its CLSD program work, specifically the Literacy Needs Assessment, review of the Missouri State Literacy Plan, and prescriptive guidance for Missouri educators regarding teaching students to read. Education

stakeholders from across Missouri will comprise the majority of the advisory committee. MO-DESE will recruit technical experts in literacy as additional advisors.

External Evaluator: ACS Ventures (see Appendix E) will provide ongoing evaluation. ACS's evaluation design will first involve a review and clarification of the program goals, activities, and outcomes. Throughout the first year of the program, ACS will complete a systematic review of the program's inputs, activities, outputs, and outcomes in the logic model. Working with the implementation team, a measurement plan will be developed to identify the indicators that will be used to evaluate the project's components, data collection strategies, and expected analyses. Throughout the life of this project, ACS anticipates that the measures used to evaluate the effectiveness of the Missouri project will be a combination of program-developed reports, surveys of school and district personnel, interviews with participants, and student assessment data, allowing the evaluation team to review how well program goals have been met and serving to gather baseline information that will help evaluate the effectiveness of the program over time. In addition to the annual report that ACS will prepare and provide to MO-DESE, ACS will prepare an annual report for the federal administrators of the grant, providing information for the administrators to understand key activities completed, data collected, and results of analyses.

Quality of the Project Services

MO-DESE and grant partners (see Appendix F) have developed a plan rich in research and experience to serve high-need schools. Detailed descriptions from each partner follow, adding rationales and supporting evidence for project information provided in the logic model.

Show Me Literacies Collaborative (SMLC)

The Show Me Literacies Collaborative is designed to facilitate the creation of effective literacy plans for schools serving Missouri's most vulnerable students. Essential components

identified in the [*K-12 Missouri State Literacy Plan*](#) include consideration of literacy needs and expectations of district and community; resources needed to support literacy development, implementation of curriculum, instruction, and assessment; and use of on-going data-informed decision-making. SMLC expands on these components with three additional features: a culturally responsive approach to teaching that recognizes students' funds of knowledge and cultural assets, expanding traditional understandings of literacy to accommodate multimodal and digital literacies, and considering a learner from birth to college and career. This serves the needs of all children, including children with disabilities and English learners, especially children who are reading below grade level. The Collaborative consists of literacy experts from the University of Missouri System, Missouri Writing Projects Network, and Missouri Language and Literacies Center. Missouri Reading Initiative literacy experts will provide intensive supports for K-3.

This proposal captures the comprehensive nature of literacy. From birth through early elementary, into upper elementary, middle school, high school, and higher education, program developers unpack a continuum of literacy. Even though the different grade/age spans are divided, we see that the work needs to be connected throughout as well as across the geographic regions of the state. Therefore, our program is meant to be responsive to geographic diversity, school needs, and individual learners' (teachers' and students') experiences.

While Missouri's state literacy plan identifies the importance of multimodal and digital literacies, this project will help teachers go beyond the guidance that asks teachers to "prepare students to read and interact with digital text" (p. 23). Digital literacy today must also include the creation and remixing of multimodal and digital texts.

The state literacy plan recognizes that “preparing Missouri students for lifelong learning and college and career readiness is a shared responsibility of state policymakers, districts, buildings, families and the community” (p. 39). A school’s literacy plan should take into account each learner’s literacy development from birth through college and career, engaging learners with teachers, schools, educational partners, and communities. The design of this project supports the inclusion of additional educational partners who can provide enrichment opportunities for teachers with unique grade-level needs. It aligns with the emphasis in the Missouri Learning Standards on reading and evaluating a wide range of material, writing formally and informally, and identifying and evaluating relationships between language and culture. Participating educators in this project will have the benefit of a true teacher leadership model. Teachers are understood to be agents of change who modify their instruction and curriculum based on formative assessments and deeper knowledge of their students as guided by professional research.

The partners involved have the technology and experience in delivering high-quality hybrid and fully online professional development. **All of the programs we are proposing can be facilitated online, hybrid, or face-to-face. In light of the COVID-19 pandemic, we have planned a responsive and flexible model for program and service delivery.**

The design of the SMLC provides multiple pathways for participating teachers to pursue graduate credit, certificates, microcredentials, or reading certification through our consortium of higher education institutions.

Literacy Specialist Certification. We propose that in order to have a certified literacy specialist in each of the school sites that we provide tuition for a teacher in each building to go through the online reading certification.

Graduate Certificate in the Teaching of Writing. Writing Project Summer Institute English credit can build capacity for teachers to provide dual credit enrollment options at their schools.

Microcredentialing. Teachers can earn microcredentials through the National Writing Project badging and through creation of a state-level badging system.

These comprehensive literacy focus areas will guide the birth-12 program for SMLC:

- Developmental continuum (emergent, early, transitional, intermediate, adolescent, adult)
- Disciplinary literacy (inquiry, source-based argument, literacy across the curriculum)
- Multimodal and digital literacies (reading, writing, speaking, listening, viewing, and visually representing with print and digital texts)
- Integrated view of reading, writing, speaking, listening, viewing, and visually representing
- Family and community literacies (birth-12)
- Ultimate goal of student learning

Family, Community, and Emergent Literacy Birth-K with Transitional Support to Grade 3
Missouri Learning and Literacies Center (part of SMLC)

Evidence Base for Framing: Family Literacy Scholarship—SMLC is grounded in the research and understanding that all families have rich home language and literacy resources they practice daily and should be encouraged to participate in child-centered reading and writing activities rather than formalized literacy instruction (Auerbach, 1989; Murillo, 2012; Reyes et al,

2016; Rogers & Brefeld, 2015; Taylor & Dorsey-Gaines, 1988). From this perspective, we believe that every child (age birth to 5 years old) brings valuable language and literacies to the classroom and has the capacity for academic reading achievement when paired with a strong foundation in early literacy reading and learning upon entering school.

Broadening What Counts as Literacy Among Families: Multimodal Literacies—More recent family literacy research has revealed a range of literacy practices involving newspapers, magazines, books (including cookbooks), and digital literacy practices (Compton-Lilly, 2017; Lewis, 2009; Rogers, 2003). For example, through frequent home visits as part of their research, Compton-Lilly (2017) learned that some students’ parents were avid readers of science fiction, mysteries, and U. S. history. Lewis (2009) similarly documented multiple modes of digital literacy in one African American family, including texting, instant messaging, internet troubleshooting, and literacies involved in disassembling and assembling computers. Rogers (2003) also uncovered the use of a wide range of texts among African American participants including newspapers, employment applications, community petitions, social service documents, and reports from school. From this research, we learn that early childhood educators (ECE) can engage in home visits and interviews with families to learn more about the wide range of language and literacy they practice at home. Findings also show parents want to learn the ways the school was teaching their child to read and write, and that the relationships and learning that was cultivated through these partnerships helped to demystify school literacy pedagogies and engender greater connectivity between home and the school. In this way, parents felt more able to support their children’s literacy development at home.

The evidence makes visible the understandings and emerging lines of argument related to family literacy practices that generally are not visible, particularly as it relates to poor families; immigrant families; and culturally, linguistically, and ethnically diverse families. Grounded in the learning from this relevant research, SMLC will guide ECEs as they make decisions that support and extend family literacy practices and grow child- and family-centered reading and writing practice, while developing initiatives that honor family strengths and knowing and recognizing their more expansive literacy practices.

Evidence Base for PD Model: Collaborative Inquiry Teacher Learning Model—Toward enhancing ECE knowledge and practice for young children’s language and literacy learning, SMLC will employ a collaborative inquiry teacher learning model which builds on teachers’ ongoing learning rather than generically disseminating strategies in one-day workshops.

The collaborative inquiry program is shaped by the following four strands: Teachers will (1) develop understandings (i.e. beliefs, experiences, ideologies) about early childhood learning (Kuby, 2013; Razfar, 2012); (2) explore and design research-based curriculum for children that honors families knowing and explores more expansive views of literacy (Fraiberg, 2013; Zapata et al, 2015); (3) enact, reflect on, and refine curriculum and instruction (Reinking & Bradley, 2008); and (4) collaboratively analyze student outcomes generated primarily during the literacy instructional block (Darling-Hammond, 2008) such as reading, writing, dramatic play, and literature response discussions. Teachers, with the support of facilitators, will work toward building knowledge and pedagogies that leverage children’s and their families’ assets as learning resources through the following activities: monthly two-hour meetings to discuss and examine student outcomes, monthly online journaling activity that invites further reflection and response

to new insights, ongoing book study of research-based literacy approaches, monthly collaborative analysis of teacher-selected student artifacts to inform instruction, and bi-yearly peer observation to complement peer mentoring efforts.

Foundational Literacy Grades K-3

Missouri Reading Initiative

Intensive professional development for teaching reading will be provided by MO-DESE partner Missouri Reading Initiative (MRI) with alignment to Missouri Learning Standards and the *K-12 Missouri State Literacy Plan* with an emphasis on reading foundations.

Evidence Base for Framing: Foundational Literacy—The foundational literacy focus is based on the principles of evidence-based instructional strategies, including the most current findings by the National Reading Panel (2000). The goal for Show Me Literacies Collaborative and Missouri Reading Initiative is for Missouri elementary educators to have a firm knowledge of the Missouri Learning Standards and to employ researched foundational practices in their reading, writing, listening, and speaking instruction to impact student literacy achievement.

Teaching students academic language skills (including the use of inferential and narrative language) and vocabulary knowledge. Instruction in vocabulary and other language concepts, such as word structure, origin, and meaning, is advocated by the National Reading Panel (2000). Their analysis of student performance found that vocabulary and other language concepts have a strong reciprocal relationship to comprehension. Though researchers found only minimal evidence to support vocabulary in studies reviewed, the value it brings to literacy acquisition is certain. Therefore, their conclusion continued to give merit to language skill implementation (Foorman et al., 2016). It has also been supported that extensive and varied vocabulary instruction is especially effective for English language learners (Gersten et al., 2007).

Developing awareness of the segments of sound in speech and how they link to letters.

Phonemic awareness consists of tasks ranging from identifying the first sound in a word to more complex tasks, such as blending several phonemes into words, blending and segmenting words into phonemic units, and deleting and substituting sounds in a word (Torgesen, Wagner, & Roshotte, 1994). Growth in phonemic awareness following attainment of beginning levels of understanding and skill is driven primarily by instruction and practice in the use of phonemic decoding strategies in reading (Perfetti et al., 1987).

Phonemic awareness is a strong predictor of later success or failure in reading (Adams, 1990). A significant conclusion from the National Reading Panel's (2000) analysis also reveals adding well-designed phonemic awareness instruction to a beginning or remedial program is likely to result in significant effects in the acquisition of reading and writing skills. Numerous studies have shown that learning to read can be facilitated by providing explicit instruction that directs children's attention to the phonological structure of words, indicating that phonological awareness plays a causal role in learning to read (Foorman et al., 2016).

Teaching students to decode words, analyze word parts, as well as to write and recognize words. Extending the concepts of phonemic/phonological awareness, phonics instruction teaches children the relationships between the letters (graphemes) of written language and the individual sounds (phonemes) of spoken language. The goal of phonics is to help children learn and use the systematic and predictable relationships between written letters and spoken sounds known as the alphabetic principle. It is effective for children from various social and economic levels and particularly beneficial for children who are having difficulty learning to read (Armbruster et al., 2001). Direct teaching of phonics seems to be a particularly pressing issue for students from

high-poverty backgrounds where the benefits of explicit instruction in decoding is pronounced (Foorman et al., 2016).

Ensuring that each student reads connected texts every day to support reading accuracy, fluency, and comprehension. A study by the National Assessment of Educational Progress on fluency in American education found a close relationship between fluency and reading comprehension (Pinnell et al., 1995). Re-reading of familiar texts, shared reading, and independent reading all positively impact fluency. Reading aloud to students provides a model of fluent, expressive reading which also assists students in developing fluency. Classroom practices such as repeated oral reading with feedback and guidance leads to higher reading skills for both good and challenged readers. An extensive review of literature by the National Reading Panel (2000) confirmed the theory that fluency can be encouraged through instructional procedures.

Comprehension has come to be viewed as the essence of reading (Durkin, 1993). This perspective has evolved from one of the 1970s researchers, Markman (1981), who studied readers' awareness of their comprehension processes. In the cognitive research of the reading process, reading is active and purposeful (Pressley & Afflerbach, 1995). Years of controlled scientific research have revealed that comprehension can be taught to those students with difficulties (Foorman et al., 2016, Armbruster et al., 2001, Shanahan et al., 2010).

Early Writing. Because of the reciprocal nature of writing and reading, it is considered part of early literacy instruction. Reading and writing are dependent upon common cognitive abilities and knowledge base. Therefore, when a student is engaged in writing, it enhances the cognitive skills needed in reading and vice versa. (Berninger & Swanson, 1994). Students begin exploring writing tools at a very early age. There is strong evidence for the importance of teaching the writing process for a variety of purposes (Graham et. al., 2018).

Monitoring of Learning Effective assessment makes it possible for teachers to monitor and document children's progress over time; ensure that instruction is appropriately matched to what children are able to do; enable children to observe their own growth and development; and identify children who might benefit from more intensive levels of instruction, such as individual tutoring, or other interventions (Neuman et al., 2000; Gersten et. al., 2009). Appropriate screening and assessment instruments can measure school and student needs. A close analysis of this information can best determine appropriate content and instructional strategies to be used. Summative assessments will inform local districts of specific areas of need that can be woven into school, classroom, and student educational plans.

Evidence Base for PD Model

Approach to professional development. MRI literacy facilitators will work with administrators and teachers in schools targeting improvement in foundational literacy. Holding to the Professional Learning Standards of Learning Forward (2011), MRI's on-site, long-term, comprehensive support allows MRI literacy facilitators to become invested as partners with teachers at individual school sites focusing on improved literacy achievement for every student. Facilitators will assist subgrantee schools with assessment, planning, implementation, and evaluation of comprehensive school improvement in literacy.

Throughout the process, MRI facilitators will conduct multiple, full-day sessions with administrators and teachers at each site. All teachers who impact literacy instruction (classroom teachers, special education teachers, reading specialists, literacy coaches, and librarians) are expected to be involved. Mandatory participation by the building leadership is crucial to best support systemic professional learning at the school site (Fullan, 1997). Throughout the school year, the MRI facilitator will return every few weeks to collaborate and model components of foundational literacy with grade-level teachers. Teachers will observe various structures to teach

literacy content following the Gradual Release of Responsibility philosophy which they, in turn, will use with students. This encompasses the apprenticeship stages of *I do it, we do it, you do it* (Duke & Pearson, 2002). Using a gradual release of responsibility instructional framework, the teacher first models the desired learning for students. Over time, students assume more responsibility for the task as they move from participants in the modeled lesson, to apprentices in shared instruction, to collaborators with their peers, and ultimately to independent performers. MRI facilitators will assist teachers with implementing such a framework:

1. Focus lessons—establish purpose and model skills
2. Strategic/Guided instruction—differentiate instruction for groups of students based on needs
3. Collaborative learning—allow students to interact with one another as they apply, in unique learning situations, what they have learned
4. Independent practice—ensure that students can independently use what they have learned

Common grade-level group time will provide opportunities for teachers to reflect on their practice, collaborate with the MRI facilitator and each other, and plan for further visits. Upon return visits, facilitators will observe and coach individual teachers as they utilize information discussed earlier during collaborations. Schools will be encouraged to establish literacy study groups that will meet between facilitator visits to continue the teachers’ understanding of evidence-based literacy practices and their impact on student achievement.

Intermediate and Adolescent Literacy Grades 4-12

Missouri Writing Projects Network (part of SMLC)

The *K-12 Missouri State Literacy Plan* defines literacy as “the ability to identify, understand, interpret, create, compute and communicate using visual, audible and digital

materials across disciplines and in any context” (pg. 4). SMLC’s program for the Intermediate and Adolescent Literacy strand of the proposal is based on this inclusive definition of what counts as literacy and highlights the digital and disciplinary literacies required as students progress from early literacy to adolescent literacy.

Evidence Base for Framing: Intermediate and Adolescent Literacy—The view that reading skills develop hierarchically, as Jean Chall (1996) and Shanahan and Shanahan (2008) put forth, asserts that students progress developmentally from learning to read to reading to learn to using reading and writing to construct new knowledge. By the time students reach grade 4, language in the content areas becomes more technical and abstract (Spires et al., 2018). However, the hierarchical progression view of disciplinary literacy may be problematic. We have long been warned to resist a false dichotomy between learning to read and reading to learn. Even when students are learning to read, they can still be reading to learn. In the same way that we should resist a false dichotomy between early (learning to read) and intermediate (reading to learn) literacy, Brozo, Moorman, Meyer, and Steward (2013) argue that we need to resist a false dichotomy between content literacy in intermediate grades and disciplinary literacy in adolescence. In “reconciling the divide” (Cervetti, 2014), researchers have proposed discipline-specific reading and writing strategies to aid students in constructing knowledge.

Discipline-specific reading and writing strategies. We use the term *disciplinary literacy* to refer to advanced literacy skills and disciplinary ways of thinking. Students need to learn these advanced skills and dispositions within each discipline over time. Research on incorporating disciplinary literacy in classrooms has shown promising results, including increased reading comprehension for students (Gillis, 2014; Lai, Wilson, McNaughton, & Hsaio, 2014; Reisman,

2012). The specific focus on knowledge creation as part of disciplinary literacy connects with SMLC's overarching emphasis on inquiry.

Digital and multimodal literacies. Digital literacy includes consuming, creating, and communicating digital products (Spires, Medlock, & Kerkhoff, 2019). Research suggests that digital literacy requires the ability to perform inquiry using the internet, specifically, identify a problem or research question, locate reliable sources on the internet, read through a critical lens, and construct knowledge by synthesizing information from multiple sources (Dwyer, 2016; Leu et al., 2019). If students do not develop digital literacy, research has indicated impediments to learning in future years (Kimani & Onyancha, 2015; Leu et al., 2019) We know that there is an achievement gap in digital literacy based on income (Leu et al., 2015). We also know from research that students need intentional instruction on critical reading in digital environments, especially students for whom the digital literacy gap exists (Coiro et al., 2015; Leu et al., 2015). Remote learning during the Coronavirus pandemic has highlighted how inequalities in digital literacy further exacerbate gaps in learning outcomes (see Walentik, 2020).

Evidence Base for PD Model: C3WP Professional Learning Model

Missouri Writing Projects Network (part of SMLC)

The College, Career, and Community Ready Writers Program (C3WP) is a professional development program that supports teachers' use of instructional resources and formative assessment tools to teach source-based argument writing. The program was developed and piloted by the National Writing Project with successive cycles of revision and continued resource development. A randomized controlled trial of the C3WP demonstrated a positive, statistically significant impact on students' argument writing across multiple dimensions.

Approach to argument writing. The C3WP model rests on the premise of dialogue, not debate. Drawing on Harris (2017), argument writing is framed as entering into a conversation in which co-construction of understanding and presentation of evidence from credible sources are key goals. This framework starts from the premise that one must first learn what other credible voices have written about a topic before taking a stance. From there, one can draw upon source evidence and use various writing moves to forward or counter a particular stance on a topic.

Approach to professional development. Cycles of instruction drive the C3WP model. Each cycle consists of intensive, professional development embedded in formative assessment of students' argument writing along with skills-based instructional resources. Instructional leaders, including teachers, administrators, and literacy/ELL specialists, collaboratively engage in examining student writing through use of the Using Sources Tool, a formative assessment tool that breaks down the skills of argument writing. This collaboration develops a shared language of argument writing that supports full-school implementation of effective argument writing instruction. C3WP instructional resources are organized into skills-based mini-units to be taught over 4 to 6 class periods. Students are guided to draw evidence from single sources and then across sources with evidence-based comprehension and note taking strategies in order to develop proficiency with the argument writing skill that is the focus of the mini-unit (e.g. making and revising a claim, connecting evidence to claims, organizing evidence, countering, etc.). Along the way, teachers are supported through job-embedded and content-specific professional development. This model supplements standards-based curriculums already in place in schools and allows for flexible and varied cycles of instruction based on formative assessment. offering a sustainable model that can be continued and adapted by schools over time.

Evidence base. The C3WP model incorporates the seven characteristics of effective professional development outlined by Darling-Hammond, Hyler, & Gardner (2017). C3WP's formative assessment tools and instructional resources are clearly aligned with the What Works Clearinghouse evidence-based recommendations for teaching writing (Graham et al., 2016). For example, the instructional resources are built around explicit modeling and instruction of writing strategies along with ample opportunity to practice and reflect. Reading and writing practices are fully integrated through the source-based focus of gathering and organizing evidence to make a claim. The assessment tools purposefully drive cycles of instruction and feedback in order to support targeted skills development. Finally, the C3WP model has been shown effective in improving students' proficiency in argument writing through a randomized, controlled research trial (Gallagher, Arshan, & Woodworth, 2017). Students who worked with the C3WP model showed positive, statistically significant growth in content, structure, stance, and conventions with increased proficiency in the quality of reasoning and use of evidence in their writing.

Birth-12th Grade Pre-service Teachers

Higher Education and Teacher Education

University of Missouri System and Missouri HBCUs (part of SMLC)

SMLC will build capacity of teacher educators, birth-12 pre-service teachers and caregivers, and teachers from schools that are not subgrantee sites. As part of SMLC, the UM System and Historically Black Colleges and Universities will work together to build capacity through online resource creation, curation, and distribution. We will create six modules on literacy education housed on MO-DESE's website. Each module will feature an evidence-based article from a Missouri educator, a podcast interview with the article author, and video case study of the evidenced-based method in practice in a Missouri classroom. Video case studies help teachers

envision theory in practice (Cannings & Talley, 2003; Kerkhoff, 2020; Masats, & Dooly, 2011; Özkan, 2002), and seeing the practice in real classrooms “enhances sense of context and realism for pre-service teachers” (Perry & Talley, 2001, p. 26). Contextualizing the case study to Missouri could further enhance realism for Missouri pre-service teachers, and the case study will be aligned to the Missouri Learning Standards. Each module will end with reflection questions, as reflective practice has long been lauded as essential in teacher education, whether formal or informal in nature (Loughran, 2002; Mumford & Dikilitis, 2020; Shoffner, 2008).

Each module will also include three sections of curated resources focused on (1) particular developmental components of literacy—such as emergent, early, intermediate, and adolescent literacy; (2) disciplinary literacies in specific content areas—such as English language arts, history and science; (3) and inclusive practices—such as adaptations for students with literacy disabilities and English learners. These sections would include videos of the evidence-based strategies in action curated from open-access and creative commons.

The six modules would be housed on MO-DESE’s website as open-access and creative commons. Missouri teacher educators would be free to copy and paste the module and any resources within the module into their own university-based courses. If remote learning would have to happen in any Missouri community again, this resource could ensure that pre-service teachers continue to learn about evidenced-based literacy through evidence-based online methods. The modules would be shared with teacher educators and pre-service teachers at the Missouri Write to Learn conference and on social media. The goal is to build pre-service teacher capacity across literacy programs in colleges of teacher education statewide.

References

- Adams, J. J. (1990). *Beginning to read: Thinking and learning about print*. Cambridge, MA: MIT Press.
- Armbruster, B., Lehr, F., & Osborn, J. (2001). Put reading first: The research building blocks for teaching children to read, The National Institute for Literacy; The Partnership for Reading.
- Berninger, V. W. & Swanson H. L. (1994) Modifying Hayes and Flowers' model of skilled writing to explain beginning and developing writing. In E. Butterfield (Ed.), *Children's writing: Toward a process theory of development of skilled writing* (pp. 57-81), Greenwich, CT: JAI Press.
- Brozo, W. G., Moorman, G., Meyer, C., & Steward, T. (2013). Content area reading and disciplinary literacy: A case for the radical center. *Journal of Adolescent & Adult Literacy*, 56(5), 353-357.
- Cannings, T., & Talley, S. (2003, January). Bridging the gap between theory and practice in preservice education: The use of video case studies. Paper presented at ICT and the Teacher of the Future, Melbourne, Australia.
- Cervetti, G. (2014). Content area literacy and disciplinary literacy in elementary science: Reconciling the divide. Paper presented at the Annual Literacy Research Association Conference, Marco Island, FL.
- Chall, J. S. (1996). *Stages of reading development (2nd ed.)*. Fort Worth, TX: Harcourt Brace.
- Coiro, J., Coscarelli, C., Maykel, C., & Forzani, E. (2015). Investigating criteria seventh graders use to evaluate the quality of online information. *Journal of Adolescent & Adult Literacy*, 58(7), 546-550.
- Compton-Lilly, C. (2017). Family and home literacy across time. In *Oxford Research Encyclopedia of Education*.
- Compton-Lilly, C., Ellison, T. L., & Rogers, R. (2019). The promise of family literacy: Possibilities and practices for educators. *Language Arts*, 97(1), 25-35.
- Darling-Hammond, L. (2008). Teacher learning that supports student learning. *Teaching for Intelligence*, 2(1), 91-100.
- Darling-Hammond, L., Hyler, M. E., & Gardner, M. (2017). *Effective teacher professional development*. Palo Alto, CA: Learning Policy Institute. Retrieved from: <https://learningpolicyinstitute.org/product/teacher-prof-dev>.
- Duke, N., & Pearson, D. (2002) Effective practices for developing reading comprehension. Farstrup & Samuels (eds.), *What research has to say about reading instruction*. Newark, Delaware: International Reading Association.

- Durkin, D. (1993). *Teaching them to read (6th ed.)*. Boston, MA: Allyn & Bacon.
- Dwyer, B. (2016). Engaging all students in internet research and inquiry. *The Reading Teacher*, 69(4), 383-389.
- Foorman, B., Beyler, N., Borradaile, K., Coyne, M., Denton, C.A., Dimino, J., Furgeson, J., Hayes, L., Henke, J., Justice, L., Keating, B., Lewis, W., Sattarr, S., Streke, A., Wagdner, R., & Wissel, S. (2016) Foundational skills to support reading for understanding in kindergarten through 3rd grade (NCCR 2016-4008). Washington, DC: National Center for Education Evaluation and Regional Assistance (NCEE), Institute of Education Sciences, U.S. Department of Education. Retrieved from <http://whatworks.ed.gov>.
- Fullan, M. (1997). *What's worth fighting for in the principalship?* Ontario: Ontario Public School Teacher's Federation.
- Gallagher, H.A., Arshan, N. & Woodworth, K. (2017). Impact of the National Writing Project's College-Ready Writers Program in high-need rural districts. *Journal of Research on Educational Effectiveness*, 10(3), 570-595. DOI: 10.1080/19345747.2017.1300361.
- Gersten, R., Baker, S., Collins, P., Linan-Thompson, S., Scarcella, R., & Shanahan, T. (2007). Effective literacy and English language instruction for English learners in the elementary grades (NCEE 2007-4011). Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education.
- Gersten, R., Compton, D., Conner, C. M., Dimino, J., Newman-Gonchar, R., Hallgren, K., Santoro, L., Linan-Thompson, S., & Tilly, W. D. (2009). Assisting students struggling with reading: Response to intervention and multi-tier intervention in the primary grades (NCEE 2009-4045). Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Science, U.S. Department of Education.
- Gillis, V. (2014). Disciplinary literacy: Adapt not adopt. *Journal of Adolescent & Adult Literacy*, 57, 614-623.
- Graham, S., Bradley, M. C., Bollinger, A., Olson, C. B., D'Aoust, C., Knechtel, V., MacArther, C., McCutchen, D., Olinghouse, N., Onaran, B., & Pickens Jewell, C. (2018). Teaching elementary school students to be effective writers (NCEE 2012-4058). Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education.
- Graham, S., Bruch, J., Fitzgerald, J., Friedrich, L., Furgeson, J., Greene, K., Kim, J., Lyskawa, J., Olson, C.B., & Smither Wulsin, C. (2016). *Teaching secondary students to write effectively* (NCEE 2017-4002). Washington, DC: National Center for Education Evaluation and Regional Assistance (NCEE), Institute of Education Sciences, U.S. Department of Education. Retrieved from: <http://whatworks.ed.gov>.
- Harris, J. (2017). *Rewriting: How to do things with text* (2nd ed.). Boulder, CO: Utah State University Press.

- Kerkhoff, S. N. (2020). Collaborative video case studies and online instruments for self-reflection in global teacher education. *Journal of Technology and Teacher Education*, 28(2), 1-11.
- Kimani, H. N., & Onyancha, O. B. (2015). Information literacy skills among incoming first-year undergraduate students at the Catholic University of Eastern Africa in Kenya. *Innovation: Journal of Appropriate Librarianship and Information Work in Southern Africa*, 2015(51), 22-45.
- Kuby, C. R. (2013). Critical inquiry in early childhood education: A teacher's exploration. *Voices of Practitioners*, 8(1), 1-15.
- Lai, M. K., Wilson, A., McNaughton, S., & Hsiao, S. (2014). Improving achievement in secondary schools: Impact of a literacy project on reading comprehension and secondary school qualifications. *Reading Research Quarterly*, 49, 305-334.
- Learning Forward. (2011). Standards for Professional Learning. <http://www.learningforward.org/standards-for-professional-learning>.
- Leu, D. J., Forzani, E., Rhoads, C., Maykel, C., Kennedy, C., & Timbrell, N. (2015). The new literacies of online research and comprehension: Rethinking the reading achievement gap. *Reading Research Quarterly*, 50(1), 37-59.
- Leu, D. J., Kinzer, C. K., Coiro, J., Castek, J., & Henry, L. A. (2019). New literacies: A dual-level theory of the changing nature of literacy, instruction, and assessment. In D. Alvermann, N. Unrau, M. Sailors, & R. Ruddell (Eds.), *Theoretical models and processes of literacy*. New York, NY: Routledge.
- Lewis, T. Y. (2009). Family literacy and digital literacies: A redefined approach to examining social practices of an African-American family (unpublished doctoral dissertation). State University of New York at Albany.
- Loughran, J. J. (2002). Effective reflective practice: In search of meaning in learning about teaching. *Journal of Teacher Education*, 53(1), 33-43.
- Markman, E. M. (1981). Comprehension monitoring. In W. P. Dickson (Ed.), *Children's oral communication skills*. New York: Academic Press.
- Masats, D., & Dooly, M. (2011). Rethinking the use of video in teacher education: A holistic approach. *Teaching and Teacher Education*, 27(7), 1151-1162.
- Mumford, S., & Dikilitaş, K. (2020). Pre-service language teachers reflection development through online interaction in a hybrid learning course. *Computers & Education*, 144, 103706.
- Murillo, L. A. (2012). Learning from bilingual family literacies. *Language Arts*, 90(1), 18-29.
- National Reading Panel (2000). Report of the National Reading Panel. Washington, DC: U.S. Government.

- Neuman, S., Copple, C., & Bredekamp, S. (2000). *Learning to read and write: Developmentally appropriate practices for young children*. Washington, D.C: National Association for the Education of Young Children.
- Özkan, B. (2002). The use of video cases in teacher education. *The Turkish Online Journal of Educational Technology*, 1(1), 37-40.
- Perfetti, C. A., Beck, I., Bell, L., & Hughes, C. (1987). Phonemic knowledge and learning to read are reciprocal: A longitudinal study of first grade children. *Merrill-Palmer Quarterly*, 33, 283-319.
- Perry, G., & Talley, S. (2001). Online video case studies and teacher education: A new tool for preservice education. *Journal of Computing in Teacher Education*, 17(4), 26-31.
- Pinnell, G. S., Pikulski, J. J., Wixson, K. K., Campbell, J. R., Gough, P. B., & Beatty, A. S. (1995). *Listening to children read aloud*. Washington, DC: Office of Educational Research and Improvement, U.S. Department of Education.
- Pressley, M., & Afflerbach, P. (1995). *Verbal protocols of reading: The nature of constructively responsive reading*. Mahway, NJ: Erlbaum.
- Razfar, A. (2012). Narrating beliefs: A language ideologies approach to teacher beliefs. *Anthropology & Education Quarterly*, 43(1), 61-81.
- Reinking, D., & Bradley, B. A. (2008). On formative and design experiments: Approaches to language and literacy research (Vol. 3). New York, NY: Teachers College Press.
- Reisman, A. (2012). Reading like a historian: A document-based history curriculum intervention in urban high schools. *Cognition and Instruction*, 30(1), 86-112.
- Reyes, I., Da Silva Iddings, A. C., & Feller, N. (2016). Building relationships with diverse students and families: A funds of knowledge perspective. *Journal of Early Childhood Literacy*, 16(1), 8-33.
- Riley, B. (2020). Drawing on reading science without starting a war. *Educational Leadership*, 77(5), 16-22.
- Rogers, R. (2003). *A critical discourse analysis of family literacy practices: Power in and out of print*. Philadelphia, PA: Routledge.
- Rogers, R., & Brefeld, R. (2015). Parents appraise schools: A study of counter-narratives. *Linguistics and Education*, 29, 46-58.
- Shanahan, T., & Shanahan, C. (2008). Teaching disciplinary literacy to adolescents: Rethinking content-area literacy. *Harvard Educational Review*, 78(1), 40-59.
- Shanahan, T., Callison, K., Carriere, C., Duke, N., Knechtel, V., Pearson, D., Sama Martin, E., Sattar, S., Schatschneider, C., Torgesen, J., & Wissel, S. (2010). *Improving reading comprehension in kindergarten through 3rd grade* (NCEE 2010-4038). Washington, DC:

National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education.

Shoffner, M. (2008). Informal reflection in pre-service teacher education. *Reflective Practice*, 9(2), 123-134.

Spires, H. A., Kerkhoff, S. N., Graham, A. C., Thompson, I., & Lee, J. K. (2018). Operationalizing and validating disciplinary literacy in secondary education. *Reading and Writing*, 31(6), 1401-1434.

Taylor, D., & Dorsey-Gaines, C. (1988). *Growing up literate: Learning from inner-city families*. Portsmouth: Heinemann.

Torgesen, J. K., Wagner, R. K., & Rashotte, C. A. (1994). Longitudinal studies of phonological processing and reading. *Journal of Learning Disabilities*, 27 (5), 276-286.

United States Census Bureau. (2020). Retrieved from <https://www.census.gov/quickfacts/stlouiscitymissouricounty>.

Walentik, S. (2020, May). UMSL experts discuss digital divide in education. Retrieved from <https://blogs.umsl.edu/news/2020/04/30/pandemic-exposes-digital-divide-in-education/>.

World Population Review. (2020). Retrieved from <https://worldpopulationreview.com/us-cities/st-louis-population/>.

Zapata, A., Valdez-Gainer, N., & Haworth, C. (2015). Bilingual picturebook making in the elementary classroom. *Language Arts*, 92(5), 343.

Appendices

Appendix A: Missouri QOZ List and Map (p. 37)

Appendix B: Logic Model (p. 40)

Appendix C: Program Evidence Documentation (p. 47)

Appendix D: Implementation Schedule (p. 63)

Appendix E: External Evaluator ACS Ventures (p. 68)

Appendix F: About Our Partners (p. 74)

APPENDIX A: MISSOURI QOZ LIST AND MAP



Missouri’s Nominated Opportunity Zones

City/County	Zone	City/County	Zone
Bolivar	29167960100	Joplin	29097010100
Bolivar	29167960400	Kansas City	29095000900
Branson	29213480105	Kansas City	29095001000
Butler County	29023950400	Kansas City	29095001800
Butler County	29023950500	Kansas City	29095001900
Butler County	29023950800	Kansas City	29095002100
Cameron	29025950200	Kansas City	29095003700
Cape Girardeau	29031881400	Kansas City	29095003800
Cape Girardeau	29031881600	Kansas City	29095005200
Columbia	29019001502	Kansas City	29095005400
Dallas County	29059480200	Kansas City	29095005500
Excelsior Springs	29047021701	Kansas City	29095005601
Excelsior Springs	29047021702	Kansas City	29095005602
Hannibal	29127960800	Kansas City	29095006100
Independence	29095011000	Kansas City	29095006300
Independence	29095011600	Kansas City	29095007700
Independence	29095011700	Kansas City	29095007802
Independence	29095011800	Kansas City	29095008000
Jackson County	29095004300	Kansas City	29095015300
Jackson County	29095011200	Kansas City	29095015400
Jackson County	29095012501	Kansas City	29095015500
Jackson County	29095012600	Kansas City	29095016000
Jackson County	29095013401	Kansas City	29095016100
Jackson County	29095013405	Kansas City	29095016200
Jackson County	29095015100	Kansas City	29095016300
Jackson County	29095015600	Kansas City	29095016600
Jackson County	29095015900	Kansas City	29095016900
Jefferson City	29051010500	Kansas City	29095017200
Jefferson City	29051010600	Kansas City	29095017400
Jefferson City	29051020700	Kennett	29069360500
Jennings	29189212001	Kennett	29069360600
Jennings	29189212101	Kirksville	29001950300



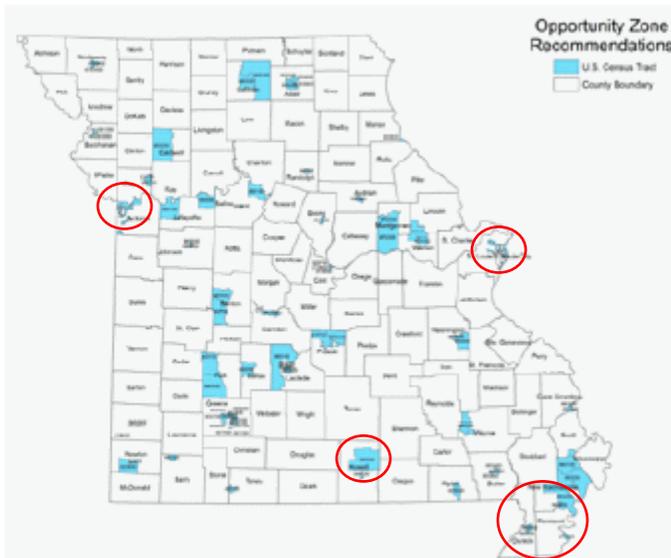


City/County	Zone	City/County	Zone
Kirksville	29001950400	Springfield	29077004400
Kirksville	29001950500	Springfield	29077002200
Kirksville	29001950900	Springfield	29077003600
Laclede County	29105960100	Springfield	29077004302
Lafayette County	29107090100	Springfield	29077005600
Lafayette County	29107090300	St. Joseph	29021001200
Lebanon	29105960400	St. Joseph	29021003000
Lebanon	29105960500	St. Louis	29510101800
Lebanon	29105960600	St. Louis	29510106100
Maryville/Nodaway Co	29147470300	St. Louis	29510106200
Maryville/Nodaway Co	29147470400	St. Louis	29510106300
Mexico	29007950400	St. Louis	29510106600
Monett	29009960300	St. Louis	29510109600
Montgomery County	29139970200	St. Louis	29510109700
Montgomery County	29139970300	St. Louis	29510111100
Neosho	29145020200	St. Louis	29510111200
New Madrid County	29143960200	St. Louis	29510112200
New Madrid County	29143960300	St. Louis	29510112300
New Madrid County	29143960400	St. Louis	29510115300
New Madrid County	29143960600	St. Louis	29510115500
Newton County	29145020800	St. Louis	29510118100
North Kansas City	29047022100	St. Louis	29510118600
Pemiscot County	29155470400	St. Louis	29510119300
Potosi	29221460300	St. Louis	29510121100
Potosi	29221460400	St. Louis	29510124600
Pulaski County	29169470101	St. Louis	29510125600
Pulaski County	29169470102	St. Louis	29510125700
Randolph County	29175490300	St. Louis	29510126600
Ripley County	29181870300	St. Louis	29510126700
Saline County	29195090100	St. Louis	29510126900
Saline County	29195090400	St. Louis	29510127000
Sikeston	29201780600	St. Louis	29510127100
Sikeston/New Madrid County	29143960100	St. Louis	29510127400
Springfield	29077000100	St. Louis	29510127500
Springfield	29077000600	St. Louis County	29189211402
Springfield	29077000700	St. Louis County	29189211500
Springfield	29077001200	St. Louis County	29189212400
Springfield	29077001500	St. Louis County	29189212700





City/County	Zone
St. Louis County	29189213700
St. Louis County	29189213900
St. Louis County	29189214100
St. Louis County	29189215600
St. Louis County	29189215700
St. Louis County	29189220200
St. Louis County	29189221800
St. Louis County/Jennings	29189212002
Sugar Creek	29095011100
Sullivan County	29211480100
Sullivan County	29211480300
Sunrise Beach	29029951200
Warren County	29219820101
Warren County	29219820102
Warrensburg	29101960400
Warrensburg	29101960600
Warsaw	29015460300
Warsaw	29015460700
Wayne County	29223690300
West Plains	29091090300
West Plains	29091090700



Regions circled in red (clockwise from top left: Kansas City, St. Louis city and north St. Louis County, southeast region, Springfield) indicate QOZ areas most likely to be served by this grant based on 2019 data from the Missouri Assessment Program (MAP).



APPENDIX B: LOGIC MODEL

Missouri Comprehensive Literacy Logic Model

OBJECTIVES	INPUTS	ACTIVITIES	OUTCOMES	ASSESSMENT TOOLS
<p>Identify and document assets of the preK-12 students, teachers, school, and district.</p> <p>Identify and document the needs of the preK-12 students, teachers, school, and district.</p>	<p>80 literacy coaches</p> <p>80 principals</p> <p>80 special educators</p> <p>80 English as a second language specialists</p> <p>(approximately 320 people)</p> <p>2 MLLC affiliated faculty</p> <p>3 MWPN regional directors</p> <p>MRI director</p> <p>10-12 MRI, MLLC, and MWPN facilitators</p> <p>Missouri state English language arts assessment program (MAP)</p>	<p>Conduct needs/assets assessment (Year 1).</p> <p>Review of MAP grades 3-10 data for each site (Year 1).</p> <p>School/District creation of School/District Comprehensive Literacy Plan with DESE support (Year 1).</p>	<p>100% of schools complete an assets/needs assessment at Year 1.</p> <p>50% of school-designed comprehensive literacy plans reflect evidence-based literacy instruction aligned with Missouri Learning Standards and Missouri State Literacy Plan as measured by a comprehensive literacy plan rubric at Year 1.</p> <p>90% of school-designed comprehensive literacy plans reflect evidence-based literacy instruction aligned with Missouri Learning Standards and Missouri State Literacy Plan as measured by a comprehensive</p>	<p>Assets/needs assessment checklist, which include differentiated assessments for developmental level: DESE-designed framework, Developmental Reading Assessment (DRA3; Beaver & Carter, 2019), PALS preK and PALS+ (Invernizzi, Sullivan, Meier, & Swank, 2004), C3WP Using Sources Tool (NWP, 2015), and related validated analytic assessment tools measuring student literacy.</p> <p>Comprehensive literacy plan rubric generated by Show Me Literacies Collaborative.</p>

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			literacy plan rubric at Year 5.	
Increase the literacy outcomes for birth-preK children in 20 high-needs communities.	<p>Approximately 20 teachers</p> <p>2 MLLC affiliated faculty</p> <p>2-4 MLLC facilitators</p>	<p>Inquiry circle monthly discussions with birth to age 3 caregivers and preschool teachers face-to-face and/or virtually (Years 1-5).</p> <p>Opportunities for graduate literacy certificate or reading certification (Years 1-5).</p>	<p>15% overall mean score increases on PALS preK assessment (20 preK sites; sample of 20 children per site) at Year 3.</p> <p>25% overall mean score increases on PALS preK assessment (20 preK sites; sample of 20 children per site) at Year 5.</p> <p>25% increase on participating four-year-old children who achieve significant gains in oral language skills as determined by a state-approved measure at Year 5.</p>	<p>PALS preK assessment (Invernizzi, Sullivan, Meier, & Swank, 2004).</p> <p>State-approved oral language measure.</p>
Increase the foundational literacy outcomes for children in grades K-3.	<p>Approximately 220 K-3 teachers</p> <p>40 literacy coaches</p> <p>40 administrators</p> <p>6 MRI facilitators</p> <p>2 MLLC affiliated faculty</p>	<p>Conduct formative and diagnostic assessments and screeners for student performance (Years 1-5).</p> <p>Teachers would use data from assessments to drive instruction</p>	<p>15% overall mean score annual increases on normed literacy battery of assessments at Year 3.</p> <p>25% overall mean score increases on</p>	<p>Normed literacy battery of assessments, i.e. PALS+, DRA3, Benchmark, Scholastic Reading Inventory.</p> <p>District common formative assessments.</p>

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	State dyslexia screener data	and monitor student growth (Years 1-5).	normed literacy battery of assessments at Year 5.	
<p>Increase preK-12 educators' frequency of evidence-based critical literacy instructional practices.</p> <p>Increase educators' sense of efficacy for literacy instruction.</p> <p>Build preK-12 literacy leadership in evidence-based literacy.</p>	<p>Approximately 320 teachers (4 per school)</p> <p>80 literacy coaches/specialists</p> <p>80 special educators</p> <p>80 English as a second language specialists</p> <p>80 principals</p> <p>3 MWPN regional directors</p> <p>1 MWP Network director</p> <p>10-12 MLLC, MRI, and MWPN facilitators</p>	<p>Facilitate summer institute (Years 1-5).</p> <p>Professional readings (Years 1-5).</p> <p>Engage in school session professional development (Years 1-5).</p> <p>Classroom observations (Years 1-5).</p> <p>Incorporate use of rubric developed by REL Southeast for evaluating reading/ language arts instructional materials (Years 1-5).</p> <p>MO-DESE staff coordinate and provide LETRS training (Years 1-5)</p>	<p>90% overall mean score increases on frequency of evidence-based critical literacy instructional practices and sense of efficacy for literacy instruction as measured by 1) change in pre-test administered at beginning of summer institute and post-test after completion of school session meetings, and 2) in-classroom observation data.</p>	<p>Critical Literacy Pedagogy Scale (Paul, 2018)</p> <p>The Teacher Sense of Efficacy for Literacy Instruction (TSELI; Tschannen-Moran & Johnson, 2011)</p> <p>Summer Institute Evaluation Survey generated by Show Me Literacies Collaborative</p> <p>Validated Observation Protocol for developmental level (e.g., C3WP (NWP 2015); CLASS (Touchstone, 2020; PLATO, Grossman et al., 2013)</p> <p>MRI and MWPN End-of-Year Participant Questionnaire</p>
<p>Increase the literacy outcomes for children in grades 3-12 at 80 high-need schools.</p>	<p>Approximately 320 grades 3-12 teachers (4 per school)</p>	<p>One-on-one coaching with PD facilitators to implement evidence-based instructional</p>	<p>15% overall mean score annual increases on Missouri state English</p>	<p>Missouri state English language arts assessment program (MAP) grades 3-10.</p>

	<p>80 literacy coaches/specialists</p> <p>80 special educators</p> <p>80 English as a second language specialists</p> <p>8-10 MRI and MWPN facilitators</p> <p>Classroom-based formative assessments</p>	<p>strategies (Years 2-5).</p> <p>Opportunities for graduate literacy certificate or reading specialist certification (Years 1-5).</p>	<p>language arts assessments at Year 3.</p> <p>25% overall mean score increases on Missouri state English language arts assessment administered during grades 3-10 at Year 5.</p> <p>25% increase in percentage of participating fifth-grade students who meet or exceed proficiency on Missouri language arts assessment by Year 5.</p> <p>25% increase in percentage of participating eighth-grade students who meet or exceed proficiency on Missouri language arts assessment by Year 5.</p> <p>25% increase in percentage of participating high school students who meet or exceed proficiency on Missouri English II assessment by</p>	<p>Battery of Literacy Assessments including instruments such as: C3WP Using Sources Tool (NWP, 2015), Read Ready (Sabatini et al., 2019), Scholastic Reading Inventory and STAR Reading by Renaissance grades 3-12.</p> <p>Rates of credit sufficiency</p> <p>Graduation rate</p>
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			<p>Year 5.</p> <p>25% increase of students reading on grade level as measured by Read Ready 3-12 by Year 5.</p> <p>15% increase of graduate rate at Year 3.</p> <p>25% increase of graduate rate at Year 5.</p>	
<p>Identify, document, and share evidence-based literacy instructional strategies that are interdisciplinary and discipline specific, as well as across development stages and age specific for preK-12 classrooms.</p> <p>Integrate evidence-based literacy instruction across the school curriculum.</p> <p>Understand barriers, challenges, and successes in implementation of evidence-based literacy interventions.</p>	<p>Approximately 320 teachers (4 per school)</p> <p>80 literacy coaches</p> <p>3 MWPN regional directors</p> <p>Professional learning books</p>	<p>Inquiry circle monthly discussions (Year 5).</p> <p>Book authors will be invited to one discussion via Zoom (Year 5).</p> <p>Collaborative teacher inquiry projects (Year 5).</p> <p>Revise School/District Comprehensive Literacy Plan.</p>	<p>90% of Inquiry Circles community members will demonstrate an increased capacity for teaching literacy as measured by 90% interventions reflect evidence-based literacy instruction aligned with Teacher Inquiry Project rubric at Year 5.</p> <p>100% of School/District Comprehensive Literacy Plans specify sustainability plans for professional learning at Year 5.</p>	<p>Teacher Inquiry Project rubric generated by Show Me Literacies Collaborative.</p> <p>Comprehensive literacy plan rubric generated by Show Me Literacies Collaborative.</p>

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<p>Integrate evidence-based literacy instruction online resources across the state's teacher education programs.</p> <p>Enrich teacher education through provision of on-demand professional learning resources.</p>	<p>1 teacher educator from UMSL, an anchor institution of a Qualified Opportunity Zone and land grant university part of the UM System</p> <p>1 teacher educator from an HBCU state university or UM System</p> <p>Research articles</p> <p>3 media technicians</p> <p>6 teachers from the subgrantee school sites</p>	<p>Instructional design of 6 modules (Years 1-3)</p> <p>Providing open access for 6 literacy research articles (Year 2)</p> <p>6 podcasts with article authors (Year 2)</p> <p>6 videos of evidence-based literacy instruction in action (Year 2)</p>	<p>Reach 2000 unique visitors by Year 5</p>	<p>Website analytics widget</p>
<p>Participants will understand the importance of designing evidence-based literacy instruction aligned to the Missouri Learning Standards.</p> <p>Participants will be able to apply evidence-based literacy instruction to their contexts.</p>	<p>2 teacher educators from HBCU state university and UM system</p> <p>1 instructional designer</p> <p>4 MOOC facilitators</p>	<p>6-week Massive Open Online Course (MOOC; Years 2-4)</p>	<p>60% of assessments submitted by MOOC participants will reflect evidence-based literacy instruction aligned with Missouri State Learning Standards as measured by a rubric at Year 2.</p> <p>90% of assessments submitted by MOOC</p>	<p>MOOC rubric generated by Show Me Literacies Collaborative.</p> <p>Course satisfaction survey generated by Show Me Literacies Collaborative.</p>

			<p>participants will reflect evidence-based literacy instruction aligned with Missouri State Learning Standards as measured by a rubric at Year 4.</p> <p>60% of participants will agree that their goal for taking the MOOC was satisfied at Year 2.</p> <p>90% of participants will agree that their goal for taking the MOOC was satisfied at Year 4.</p>	
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APPENDIX C: PROGRAM EVIDENCE DOCUMENTATION

FY 2020 APPLICATION– COMPREHENSIVE LITERACY STATE DEVELOPMENT PROGRAM EVIDENCE DOCUMENTATION – Missouri’s Show Me Literacy Collaborative

Proposed Activity, Intervention, or Practice	Program Requirements	Citation of Study of Systematic Review of Evidence	Evidence Tier	Justification for Evidence Tier and Relevant Population
<p>Ensure that each student reads connected text every day to support reading accuracy, fluency, and comprehension.</p>	<p>K-3 Summer Institutes</p>	<p>Foorman, B., Beyler, N., Borradaile, K., Coyne, M., Denton, C. A., Dimino, J., Furgeson, J., Hayes, L., Henke, J., Justice, L., Keating, B., Lewis, W., Sattar, S., Streke, A., Wagner, R., & Wissel, S. (2016). <i>Foundational skills to support reading understanding in kindergarten through 3rd grade</i> (NCEE 2016-4008). Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education.</p>	<p>Moderate Evidence</p>	<p>What Works Clearinghouse characterizes the level of evidence for this practice recommendation as Tier 2/Moderate Evidence for students in grades K-3. https://ies.ed.gov/ncee/wwc/PracticeGuide/21</p>
<p>Teach students academic language skills, including the use of inferential and narrative language, and vocabulary knowledge.</p>	<p>K-3 Summer Institutes</p>	<p>Foorman, B., Beyler, N., Borradaile, K., Coyne, M., Denton, C. A., Dimino, J., Furgeson, J., Hayes, L., Henke, J., Justice, L., Keating, B., Lewis, W., Sattar, S., Streke, A., Wagner, R., & Wissel, S. (2016). <i>Foundational skills to support reading understanding in kindergarten through 3rd grade</i> (NCEE 2016-4008). Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S.</p>	<p>Demonstrates a Rationale</p>	<p>What Works Clearinghouse characterizes the level of evidence for this practice recommendation as Tier 4/Demonstrates a Rationale for students in grades K-3. https://ies.ed.gov/ncee/wwc/PracticeGuide/21</p>

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		Department of Education.		
Teach students how to use reading comprehension strategies.	K-3 Summer Institutes	Shanahan, T., Callison, K., Carriere, C., Duke, N., Knechtel, V., Pearson, P. D., Sama Martin, E., Sattar, S., Schatschneider, C., Torgesen, J., & Wissel, S. (2010). <i>Improving reading comprehension in kindergarten through 3rd grade</i> (NCEE 2010-4038). Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education.	Promising Evidence	What Works Clearinghouse characterizes the level of evidence for this practice recommendation as Tier 3/Promising Evidence for students in grades K-3 https://ies.ed.gov/ncee/wwc/Docs/PracticeGuide/readingcomp_pg_092810.pdf
Teach students to identify and use the text’s organizational structure to comprehend, learn, and remember content.	K-3 Summer Institutes	Shanahan, T., Callison, K., Carriere, C., Duke, N., Knechtel, V., Pearson, P. D., Sama Martin, E., Sattar, S., Schatschneider, C., Torgesen, J., & Wissel, S. (2010). <i>Improving reading comprehension in kindergarten through 3rd grade</i> (NCEE 2010-4038). Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education.	Promising Evidence	What Works Clearinghouse characterizes the level of evidence for this practice recommendation as Tier 3/Promising Evidence for students in grades K-3 https://ies.ed.gov/ncee/wwc/Docs/PracticeGuide/readingcomp_pg_092810.pdf
Establish an engaging and motivating context in which to teach reading comprehension.	K – 3 Summer Institutes	Shanahan, T., Callison, K., Carriere, C., Duke, N., Knechtel, V., Pearson, P. D., Sama Martin, E., Sattar, S., Schatschneider, C., Torgesen, J., & Wissel, S. (2010). <i>Improving reading comprehension in</i>	Promising Evidence	What Works Clearinghouse characterizes the level of evidence for this practice recommendation as Tier 3/Promising Evidence for

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		<i>kindergarten through 3rd grade</i> (NCEE 2010-4038). Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education.		students in grades K-3 (https://ies.ed.gov/ncee/wwc/Docs/PracticeGuide/readingcomp_pg_092810.pdf)
Teach students to use the writing process for a variety of purposes.	K – 6 Summer Institutes 4-6 School-based PD	Graham, S., Bradley, M. C., Bollinger, A., Olson, C. B., D’Aoust, C., Knechtel, V., MacArther, C., McCutchen, D., Olinghouse, N., Onaran, B., & Pickens Jewell, C. (2018). <i>Teaching elementary school students to be effective writers</i> (NCEE 2012-4058). Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education.	Strong Evidence	What Works Clearinghouse characterizes the level of evidence for this practice recommendation as Tier 1/Strong Evidence for elementary students. (https://ies.ed.gov/ncee/wwc/PracticeGuide/17)
Provide daily time for students to write.	K – 6 Summer Institutes 4-6 School-based PD	Graham, S., Bradley, M. C., Bollinger, A., Olson, C. B., D’Aoust, C., Knechtel, V., MacArther, C., McCutchen, D., Olinghouse, N., Onaran, B., & Pickens Jewell, C. (2018). <i>Teaching elementary school students to be effective writers</i> (NCEE 2012-4058). Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education.	Demonstrates a Rationale	What Works Clearinghouse characterizes the level of evidence for this practice recommendation as Tier 4/Demonstrates a Rationale for elementary students. (https://ies.ed.gov/ncee/wwc/PracticeGuide/17)

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<p>Create an engaged community of writers.</p>	<p>K – 6 Summer Institutes 4-6 School-based PD</p>	<p>Graham, S., Bradley, M. C., Bollinger, A., Olson, C. B., D’Aoust, C., Knechtel, V., MacArther, C., McCutchen, D., Olinghouse, N., Onaran, B., & Pickens Jewell, C. (2018). <i>Teaching elementary school students to be effective writers</i> (NCEE 2012-4058). Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education.</p>	<p>Demonstrates a Rationale</p>	<p>What Works Clearinghouse characterizes the level of evidence for this practice recommendation as Tier 4/Demonstrates a Rationale for elementary students. https://ies.ed.gov/ncee/wwc/PracticeGuide/17</p>
<p>Teach a set of academic vocabulary words intensively across several days using a variety of instructional activities.</p>	<p>K – 8 Summer Institutes 4-8 School-Based PD</p>	<p>Baker, S., Lesaux, N., Jayanthi, M., Dimino, J., Proctor, C. P., Morris, J., Gersten, R., Haymond, K., Kieffer, M. J., Linan-Thompson, S., & Newman-Gonchar, R. (2014). <i>Teaching academic content and literacy to English learners in elementary and middle school</i> (NCEE 2014-4012). Washington, DC: National Center for Education Evaluation and Regional Assistance (NCEE), Institute of Education Sciences, U.S. Department of Education.</p>	<p>Strong Evidence</p>	<p>What Works Clearinghouse characterizes the level of evidence for this practice recommendation as Tier 1/Strong Evidence for elementary and middle school students. https://ies.ed.gov/ncee/wwc/PracticeGuide/19</p>
<p>Integrate oral and written English language instruction into content-area teaching.</p>	<p>K – 8 Summer Institutes 4-8 School-Based PD</p>	<p>Baker, S., Lesaux, N., Jayanthi, M., Dimino, J., Proctor, C. P., Morris, J., Gersten, R., Haymond, K., Kieffer, M. J., Linan-Thompson, S., & Newman-Gonchar, R. (2014). <i>Teaching</i></p>	<p>Strong Evidence</p>	<p>What Works Clearinghouse characterizes the level of evidence for this practice recommendation as Tier 1/Strong Evidence for</p>

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		<i>academic content and literacy to English learners in elementary and middle school</i> (NCEE 2014-4012). Washington, DC: National Center for Education Evaluation and Regional Assistance (NCEE), Institute of Education Sciences, U.S. Department of Education.		elementary and middle school students. https://ies.ed.gov/ncee/wwc/PracticeGuide/19
Provide regular, structured opportunities to develop written language skills.	K – 8 Summer Institutes 4-8 School-Based PD	Baker, S., Lesaux, N., Jayanthi, M., Dimino, J., Proctor, C. P., Morris, J., Gersten, R., Haymond, K., Kieffer, M. J., Linan-Thompson, S., & Newman-Gonchar, R. (2014). <i>Teaching academic content and literacy to English learners in elementary and middle school</i> (NCEE 2014-4012). Washington, DC: National Center for Education Evaluation and Regional Assistance (NCEE), Institute of Education Sciences, U.S. Department of Education.	Demonstrates a Rationale	What Works Clearinghouse characterizes the level of evidence for this practice recommendation as Tier 4/Demonstrates a Rationale for elementary and middle school students. https://ies.ed.gov/ncee/wwc/PracticeGuide/19
Explicitly teach appropriate writing strategies.	6-12 Summer Institutes 6-12 School-Based PD	Graham, S., Bruch, J., Fitzgerald, J., Friedrich, L., Furgeson, J., Greene, K., Kim, J., Lyskawa, J., Olson, C. B., & Smither Wulsin, C. (2016). <i>Teaching secondary students to write effectively</i> (NCEE 2017-4002). Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S.	Strong Evidence	What Works Clearinghouse characterizes the level of evidence for this practice recommendation as Tier 1/Strong Evidence for secondary students https://ies.ed.gov/ncee/wwc/PracticeGuide/22

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		Department of Education.		
Integrate writing and reading to emphasize key writing features.	6-12 Summer Institutes 6-12 School-Based PD	Graham, S., Bruch, J., Fitzgerald, J., Friedrich, L., Furgeson, J., Greene, K., Kim, J., Lyskawa, J., Olson, C. B., & Smither Wulsin, C. (2016). <i>Teaching secondary students to write effectively</i> (NCEE 2017-4002). Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education.	Moderate Evidence	What Works Clearinghouse characterizes the level of evidence for this practice recommendation as Tier 2/Moderate Evidence for secondary students. (https://ies.ed.gov/ncee/wwc/PracticeGuide/22)
Use assessments of student writing to inform instruction and feedback.	6-12 Summer Institutes 6-12 School-Based PD	Graham, S., Bruch, J., Fitzgerald, J., Friedrich, L., Furgeson, J., Greene, K., Kim, J., Lyskawa, J., Olson, C. B., & Smither Wulsin, C. (2016). <i>Teaching secondary students to write effectively</i> (NCEE 2017-4002). Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education.	Demonstrates a Rationale	What Works Clearinghouse characterizes the level of evidence for this practice recommendation as Tier 4/Demonstrates a Rationale for secondary students. (https://ies.ed.gov/ncee/wwc/PracticeGuide/22)
Provide explicit vocabulary instruction.	6-12 Summer Institutes 6-12 School-Based PD	Kamil, M.L., Borman, G.D., Cai, X., Dole, J., Helsel, F., Kidron, Y., Kral, C. C., Salinger, T., Spier, E., & Torgesen, J. (2008). <i>Improving adolescent literacy: Effective classroom and intervention practices</i> (NCEE 2008-4027). Washington, DC: National	Promising Evidence	What Works Clearinghouse characterizes the level of evidence for this practice recommendation as Tier 3/Promising Evidence for adolescents. (https://ies.ed.gov)

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		Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education.		/ncee/wwc/PracticeGuide/8
Provide direct and explicit comprehension strategy instruction.	6-12 Summer Institutes 6-12 School-Based PD	Kamil, M.L., Borman, G.D., Cai, X., Dole, J., Hessel, F., Kidron, Y., Kral, C. C., Salinger, T., Spier, E., & Torgesen, J. (2008). <i>Improving adolescent literacy: Effective classroom and intervention practices</i> (NCEE 2008-4027). Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education.	Promising Evidence	What Works Clearinghouse characterizes the level of evidence for this practice recommendation as Tier 3/Promising Evidence for adolescents. (https://ies.ed.gov/ncee/wwc/PracticeGuide/8)
Provide opportunities for extended discussion of text meaning and interpretation	6-12 Summer Institutes 6-12 School-Based PD	Kamil, M.L., Borman, G.D., Cai, X., Dole, J., Hessel, F., Kidron, Y., Kral, C. C., Salinger, T., Spier, E., & Torgesen, J. (2008). <i>Improving adolescent literacy: Effective classroom and intervention practices</i> (NCEE 2008-4027). Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education.	Promising Evidence	What Works Clearinghouse characterizes the level of evidence for this practice recommendation as Tier 3/Promising Evidence for adolescents. (https://ies.ed.gov/ncee/wwc/PracticeGuide/8)
Increase student motivation and engagement in literacy learning.	6-12 Summer Institutes 6-12 School-Based PD	Kamil, M.L., Borman, G.D., Cai, X., Dole, J., Hessel, F., Kidron, Y., Kral, C. C., Salinger, T., Spier, E., & Torgesen, J. (2008). <i>Improving adolescent literacy: Effective</i>	Promising Evidence	What Works Clearinghouse characterizes the level of evidence for this practice recommendation as Tier

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		<p><i>classroom and intervention practices</i> (NCEE 2008-4027). Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education.</p>		<p>3/Promising Evidence for adolescents. (https://ies.ed.gov/ncee/wwc/PracticeGuide/8)</p>
College-Ready Writers Program	<p>6-12 Summer Institutes</p> <p>6-12 School-Based PD</p>	<p>Gallagher, H.A., Arshan, N. & Woodworth, K. (2017). Impact of the National Writing Project's College-Ready Writers Program in high-need rural districts. <i>Journal of Research on Educational Effectiveness</i>, 10(3), 570-595. DOI: 10.1080/19345747.2017.1300361</p>	Strong evidence	<p>The study cited is an experimental design study that was implemented with fidelity and showed statistically significant improvement in students' argument writing. Thus, it meets the ESSA Evidence-Based definition for strong evidence.</p>
Enact Culturally Responsive Teaching Practices	Birth through Post-Secondary PD	<p>Aceves, T. C., & Orosco, M. J. (2014). Culturally responsive teaching (Document No. IC-2). Retrieved from University of Florida, Collaboration for Effective Educator, Development, Accountability, and Reform Center website: http://cedar.education.ufl.edu/tools/innovation-configurations/</p> <p>Krasnoff, B. (2016). Culturally responsive teaching: A guide to evidence-based practices for teaching all students equitably. Portland, OR: Region X Equity</p>	Demonstrates a Rationale	<p>Each of the research syntheses cited include high quality research findings in their reviews of the effectiveness of culturally responsive teaching practices. This is the ESSA Evidence-Based Definition for "Demonstrates a Rationale."</p> <p>NOTE: Both research reviews note the lack of</p>

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		Assistance Center at Education Northwest.		experimental and quasi-experimental research that ties culturally responsive practices to student outcomes.
Enact effective teacher professional development	Birth through Post-Secondary PD	Darling-Hammond, L., Hylar, M. E., & Gardner, M. (2017). <i>Effective Teacher Professional Development</i> . Palo Alto, CA: Learning Policy Institute. Retrieved from: https://learningpolicyinstitute.org/product/teacher-prof-dev	Strong / Moderate evidence	The research review cited includes an evidence base that consists of experimental and quasi-experimental design research studies that find positive, statistically significant effects of PD on student achievement. Thus, it meets the ESSA Evidence-Based definition for strong and/or moderate evidence.

ADDITIONAL SUPPORTS GRADES K-3 Missouri Reading Initiative

Proposed Activity, Intervention, or Practice	Program Requirement	Citation of Study or Systematic Review of Evidence	Evidence Tier	Justification for Evidence Tier and Relevant Population
Develop awareness of the segments of sounds in speech and how	Subgrant Activity	Foorman, B., Beyler, N., Borradaile, K., Coyne, M., Denton, C. A., Dimino, J., Furgeson, J., Hayes, L., Henke, J., Justice, L.,	Strong Evidence	What Works Clearinghouse characterizes the level of evidence for this practice

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<p>they link to letters.</p>		<p>Keating, B., Lewis, W., Sattar, S., Streke, A., Wagner, R., & Wissel, S. (2016). <i>Foundational skills to support reading understanding in kindergarten through 3rd grade</i> (NCEE 2016-4008). Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education</p>		<p>recommendation as Tier 1/Strong Evidence for students in grades K-3 https://ies.ed.gov/ncee/wwc/Docs/PracticeGuide/wwc_foundationalreading_040717.pdf#page=20</p>
<p>Teach students to decode words, analyze word parts, and write and recognize words.</p>	<p>Subgrant Activity</p>	<p>Foorman, B., Beyler, N., Borradaile, K., Coyne, M., Denton, C. A., Dimino, J., Furgeson, J., Hayes, L., Henke, J., Justice, L., Keating, B., Lewis, W., Sattar, S., Streke, A., Wagner, R., & Wissel, S. (2016). <i>Foundational skills to support reading understanding in kindergarten through 3rd grade</i> (NCEE 2016-4008). Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education</p>	<p>Strong Evidence</p>	<p>What Works Clearinghouse characterizes the level of evidence for this practice recommendation as Tier 1/Strong Evidence for students in grades K-3. https://ies.ed.gov/ncee/wwc/Docs/PracticeGuide/wwc_foundationalreading_040717.pdf#page=28</p>
<p>Ensure that each student reads connected text every day to support reading accuracy, fluency, and comprehension.</p>	<p>Subgrant Activity</p>	<p>Foorman, B., Beyler, N., Borradaile, K., Coyne, M., Denton, C. A., Dimino, J., Furgeson, J., Hayes, L., Henke, J., Justice, L., Keating, B., Lewis, W., Sattar, S., Streke, A., Wagner, R., & Wissel, S. (2016). <i>Foundational skills to support reading understanding in kindergarten through 3rd grade</i> (NCEE 2016-4008). Washington, DC: National</p>	<p>Moderate Evidence</p>	<p>What Works Clearinghouse characterizes the level of evidence for this practice recommendation as Tier 1/Moderate Evidence for students in grades K-3. https://ies.ed.gov/ncee/wwc/Docs/PracticeGuide/wwc_foundationalr</p>

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		Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education		eading_040717.pdf#page=38)
Screen all students for potential reading problems at the beginning of the year and again in the middle of the year.	Subgrant Activity	Gersten, R., Compton, D., Connor, C. M., Dimino, J., Newman-Gonchar, R., Hallgren, K., Santoro, L., Linan-Thompson, S., & Tilly, W.D. (2009). <i>Assisting students struggling with reading: Response to intervention and multi-tier intervention in the primary grades</i> (NCEE 2009-4045). Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education.	Moderate Evidence	What Works Clearinghouse characterizes the level of evidence for this practice recommendation as Tier 1/Moderate Evidence for all students in the primary grades. (https://ies.ed.gov/ncee/wwc/Docs/PracticeGuide/rti_reading_pg_02_1809.pdf#page=17)
Provide intensive, systematic instruction on up to three foundational reading skills in small groups to students who score below the benchmark score on universal screening.	Subgrant Activity	Gersten, R., Compton, D., Connor, C. M., Dimino, J., Newman-Gonchar, R., Hallgren, K., Santoro, L., Linan-Thompson, S., & Tilly, W.D. (2009). <i>Assisting students struggling with reading: Response to intervention and multi-tier intervention in the primary grades</i> (NCEE 2009-4045). Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education.	Strong Evidence	What Works Clearinghouse characterizes the level of evidence for this practice recommendation as Tier 2/Strong Evidence for Tier 2 students in the primary grades. (https://ies.ed.gov/ncee/wwc/Docs/PracticeGuide/rti_reading_pg_02_1809.pdf#page=25)
Teach students how to use	Subgrant Activity	Shanahan, T., Callison, K., Carriere, C., Duke, N.,	Strong Evidence	What Works Clearinghouse

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<p>reading comprehension strategies</p>		<p>Knechtel, V., Pearson, P. D., Sama Martin, E., Sattar, S., Schatschneider, C., Torgesen, J., & Wissel, S. (2010). <i>Improving reading comprehension in kindergarten through 3rd grade</i> (NCEE 2010-4038). Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education.</p>		<p>characterizes the level of evidence for this practice recommendation as Tier 1/Strong Evidence for students in grades K-3 https://ies.ed.gov/ncee/wwc/Docs/PracticeGuide/readingcomp_pg_092810.pdf#page=16)</p>
<p>Teach students to identify and use the text’s organizational structure to comprehend, learn, and remember content.</p>	<p>Subgrant Activity</p>	<p>Shanahan, T., Callison, K., Carriere, C., Duke, N., Knechtel, V., Pearson, P. D., Sama Martin, E., Sattar, S., Schatschneider, C., Torgesen, J., & Wissel, S. (2010). <i>Improving reading comprehension in kindergarten through 3rd grade</i> (NCEE 2010-4038). Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education.</p>	<p>Moderate Evidence</p>	<p>What Works Clearinghouse characterizes the level of evidence for this practice recommendation as Tier 1/Moderate Evidence for students in grades K-3 https://ies.ed.gov/ncee/wwc/Docs/PracticeGuide/readingcomp_pg_092810.pdf#page=23)</p>
<p>Establish an engaging and motivating context in which to teach reading comprehension</p>	<p>Subgrant Activity</p>	<p>Shanahan, T., Callison, K., Carriere, C., Duke, N., Knechtel, V., Pearson, P. D., Sama Martin, E., Sattar, S., Schatschneider, C., Torgesen, J., & Wissel, S. (2010). <i>Improving reading comprehension in kindergarten through 3rd grade</i> (NCEE 2010-</p>	<p>Moderate Evidence</p>	<p>What Works Clearinghouse characterizes the level of evidence for this practice recommendation as Tier 1/Moderate Evidence for students in grades K-3</p>

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		4038). Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education.		https://ies.ed.gov/ncee/wwc/Docs/PracticeGuide/readingcomp_pg_092810.pdf#page=40
Screen for reading problems and monitor progress.	Subgrant Activity	Gersten, R., Baker, S., Collins, P., Linan-Thompson, S., Scarcella, R., & Shanahan, T., (2007). <i>Effective literacy and English language instruction for English learners in the elementary grades</i> (NCEE 2007-4011). Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education.	Strong Evidence	What Works Clearinghouse characterizes the level of evidence for this practice recommendation as Tier 1/Strong Evidence for English learners in the primary grades. https://ies.ed.gov/ncee/wwc/Docs/PracticeGuide/20074011.pdf#page=21
Provide intensive small-group reading interventions.	Subgrant Activity	Gersten, R., Baker, S., Collins, P., Linan-Thompson, S., Scarcella, R., & Shanahan, T., (2007). <i>Effective literacy and English language instruction for English learners in the elementary grades</i> (NCEE 2007-4011). Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education.	Strong Evidence	What Works Clearinghouse characterizes the level of evidence for this practice recommendation as Tier 1/Strong Evidence for English learners in the primary grades. https://ies.ed.gov/ncee/wwc/Docs/PracticeGuide/20074011.pdf#page=27
Provide extensive and varied vocabulary instruction.	Subgrant Activity	Gersten, R., Baker, S., Collins, P., Linan-Thompson, S., Scarcella, R., & Shanahan, T., (2007). <i>Effective literacy</i>	Strong Evidence	What Works Clearinghouse characterizes the level of evidence for this practice

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		<i>and English language instruction for English learners in the elementary grades</i> (NCEE 2007-4011). Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education.		recommendation as Tier 1/Strong Evidence for English learners in the primary grades. (https://ies.ed.gov/ncee/wwc/Docs/PracticeGuide/20074011.pdf#page=31)
Facilitate teachers in spacing learning over time.	Subgrant Activity	Pashler, H., Bain, P. M., Bottge, B. A., Graesser, A., Koedinger, K., McDaniel, M., & Metcalfe, J. (2007). <i>Organizing instruction and study to improve student learning</i> (NCEE2007-2004). Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education	Moderate Evidence	What Works Clearinghouse characterizes the level of evidence for this practice recommendation as Tier 1/Moderate Evidence for students 3-12 (https://ies.ed.gov/ncee/wwc/Docs/PracticeGuide/20072004.pdf#page=16)
Facilitate teachers in combining graphics with verbal descriptions	Subgrant Activity	Pashler, H., Bain, P. M., Bottge, B. A., Graesser, A., Koedinger, K., McDaniel, M., & Metcalfe, J. (2007). <i>Organizing instruction and study to improve student learning</i> (NCEE2007-2004). Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education	Moderate Evidence	What Works Clearinghouse characterizes the level of evidence for this practice recommendation as Tier 1/Moderate Evidence for students 3-12 (https://ies.ed.gov/ncee/wwc/Docs/PracticeGuide/20072004.pdf#page=24)
Facilitate teachers in connecting and integrating abstract and	Subgrant Activity	Pashler, H., Bain, P. M., Bottge, B. A., Graesser, A., Koedinger, K., McDaniel, M., & Metcalfe, J. (2007).	Moderate Evidence	What Works Clearinghouse characterizes the level of evidence for this practice

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concrete representations of concepts.		<i>Organizing instruction and study to improve student learning</i> (NCEE2007-2004). Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education		recommendation as Tier 1/Moderate Evidence for students 3-12 (https://ies.ed.gov/ncee/wwc/Docs/PracticeGuide/20072004.pdf#page=26)
Facilitate teachers in using quizzes to re-expose students to key content.	Subgrant Activity	Pashler, H., Bain, P. M., Bottge, B. A., Graesser, A., Koedinger, K., McDaniel, M., & Metcalfe, J. (2007). <i>Organizing instruction and study to improve student learning</i> (NCEE2007-2004). Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education	Strong Evidence	What Works Clearinghouse characterizes the level of evidence for this practice recommendation as Tier 1/Strong Evidence for students 3-12 (https://ies.ed.gov/ncee/wwc/Docs/PracticeGuide/20072004.pdf#page=32)
Facilitate teachers in asking deep explanatory questions.	Subgrant Activity	Pashler, H., Bain, P. M., Bottge, B. A., Graesser, A., Koedinger, K., McDaniel, M., & Metcalfe, J. (2007). <i>Organizing instruction and study to improve student learning</i> (NCEE2007-2004). Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education	Strong Evidence	What Works Clearinghouse characterizes the level of evidence for this practice recommendation as Tier 1/Strong Evidence for students 3-12 (https://ies.ed.gov/ncee/wwc/Docs/PracticeGuide/20072004.pdf#page=40)
Teach students to use the writing process for a variety of purposes	Subgrant Activity	Graham, S., Bradley, M. C., Bollinger, A., Olson, C. B., D'Aoust, C., Knechtel, V., MacArther, C., McCutchen, D., Olinghouse, N., Onaran, B., & Pickens Jewell, C.	Strong Evidence	What Works Clearinghouse characterizes the level of evidence for this practice recommendation as Tier 1/Strong

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		(2018). <i>Teaching elementary school students to be effective writers</i> (NCEE 2012-4058). Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education.		Evidence for elementary students. (https://ies.ed.gov/ncee/wwc/Docs/PracticeGuide/WWC_Elem_Writing_PG_Dec182018.pdf#page=18)
Teach students to become fluent with handwriting, spelling, sentence construction, typing and word processing.	Subgrant Activity	Graham, S., Bradley, M. C., Bollinger, A., Olson, C. B., D'Aoust, C., Knechtel, V., MacArther, C., McCutchen, D., Olinghouse, N., Onaran, B., & Pickens Jewell, C. (2018). <i>Teaching elementary school students to be effective writers</i> (NCEE 2012-4058). Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education.	Moderate Evidence	What Works Clearinghouse characterizes the level of evidence for this practice recommendation as Tier 1/Moderate Evidence for elementary students. (https://ies.ed.gov/ncee/wwc/Docs/PracticeGuide/WWC_Elem_Writing_PG_Dec182018.pdf#page=33)

APPENDIX D: IMPLEMENTATION SCHEDULE

K-3 Foundational Literacy Timeline (Missouri Reading Initiative)

2020-2021	2021-2022	2022-2023	2023-2024	2024-2025
Sept - Dec	July - Aug	July - Aug	July - Aug	July - Aug
Identify School Partners	<u>Cohort 1, Year 1</u> On-site Up-Front Day for K-3 teachers	<u>Cohort 1, Year 2</u> On-site Up-Front Day for K-3 teachers <u>Cohort 2, Year 1</u> On-site Up-Front Day for K-3 teachers	<u>Cohort 2, Year 2</u> On-site Up-Front Day for K-3 teachers	
January - June	January - June	January - June	January - June	January - June
<u>Cohort 1: 20 Schools</u> On-site audit of instructional practices and resources (20 days)	<u>Cohort 1, Year 1</u> On-site, grade-level bands collaboration days: K-1 = 5 days; 2-3 = 5 days 10 collaboration days per school On-site, 9 coaching days per school Literacy in Leadership 4 days for Cohort 1 <u>Cohort 2: 20 Schools</u> On-site audit of instructional practices and resources (20 days)	<u>Cohort 1, Year 2</u> On-site, grade-level bands collaboration days: K-1 = 5 days; 2-3 = 5 days 10 collaboration days per school On-site, 9 coaching days per school Literacy in Leadership 4 days for Cohort 1 <u>Cohort 2, Year 1</u> On-site, grade-level bands collaboration days: K-1 = 5 days; 2-3 = 5 days 10 collaboration days per school On-site, 9 coaching days per school. Literacy in Leadership 4 days for Cohort 2	<u>Cohort 1, Year 3</u> On-site, 12 coaching days per school <u>Cohort 2, Year 2</u> On-site, grade-level bands collaboration days: K-1 = 5 days; 2-3 = 5 days. 10 collaboration days per school On-site, 9 coaching days per school Literacy in Leadership 4 days for Cohort 2	<u>Cohort 2, Year 3</u> On-site, 12 coaching days per school

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			May	May
			Cohort 1, Year 3 Culminating Event	Cohort 2, Year 3 Culminating Event
				May - July
				Final program evaluation and analysis

Proposed Model for Emerging, Family, and Community Literacy Focusing on Birth - K with Transitional Support to Grade 3 (Show Me Literacies Collaborative)

2020	2021	2022	2023	2024	2025
	Jan - April	Jan - April	Jan - April	Jan - April	Jan - April
	Support school partners in designing School Comprehensive Literacy Plan based on Missouri State Literacy Plan	School year sessions (8 hours) for Cohort 1 @ 3 regions in state Support partners in designing School Comprehensive Literacy Plan based on Missouri State Literacy Plan and work to identify community literacies partners	School year sessions (8 hours) for Cohort I @ 3 regions in state	School year sessions (8 hours) for Cohort I @ 3 regions in state	Culminating event (TBD) Write to Learn? Possibly partner with community literacies partners
August	May - August	May - August	May - August	May - August	May - August
Subgrant award	Cohort I Year I Summer institute	Cohort I Year II summer institute (32 hours) @ 3	Cohort I Year II summer institute (32 hours) @ 3	Cohort II summer institute (32 hours) @ 3	Final program

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competition announced DESE provides technical assistance in submitting subgrant proposals	(32 hours) @ 3 regions in state Possibly partner with community literacies partners for institute	regions in state (year 2) Cohort II summer institute (32 hours) @ 3 regions in state (year 1)	regions in state (year 3) Cohort II summer institute (32 hours) @ 3 regions in state (year 2)	regions in state (year 3)	evaluation and analysis
Sept - Dec	Sept - Dec	Sept - Dec	Sept - Dec	Sept - Dec	
Identify School Partners Needs/Assets for Cohort 1	School year sessions (8 hours) for Cohort 1 @ 3 regions in state Needs/Assets for Cohort II	School year sessions (8 hours) for Cohort I @ 3 regions in state 2 follow-up meetings for Cohort II @ 3 regions in state	School year sessions (8 hours) for Cohort I @ 3 regions in state 2 follow-up meetings for Cohort II @ 3 regions in state	2 follow-up meetings for Cohort II @ 3 regions in state	

Proposed Model for 4-12 Intermediate and Adolescent Teacher Professional Development (Show Me Literacies Collaborative)

2020	2021	2022	2023	2024	2025
	Jan - April	Jan - April	Jan - April	Jan - April	Jan - April
	Support school partners in designing School Comprehensive Literacy Plan based on Missouri State Literacy Plan	School year sessions (8 hours) for Cohort 1 @ 3 regions in state Support partners in designing School Comprehensive Literacy Plan based on Missouri State Literacy Plan	School year sessions (8 hours) for Cohort I @ 3 regions in state	School year sessions (8 hours) for Cohort I @ 3 regions in state	Culminating event (TBD) Write to Learn Conference?

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August	May - August	May - August	May - August	May - August	May - August
Subgrant award competition announced DESE provides technical assistance in submitting subgrant proposals	Cohort I Year I Summer institute (32 hours) @ 3 regions in state	Cohort I Year II summer institute (32 hours) @ 3 regions in state (year 2) Cohort II summer institute (32 hours) @ 3 regions in state (year 1)	Cohort I Year II summer institute (32 hours) @ 3 regions in state (year 3) Cohort II summer institute (32 hours) @ 3 regions in state (year 2)	Cohort II summer institute (32 hours) @ 3 regions in state (year 3)	Final program evaluation and analysis
Sept - Dec	Sept - Dec	Sept - Dec	Sept - Dec	Sept - Dec	
Identify School Partners Needs/Assets for Cohort 1	School year sessions (8 hours) for Cohort 1 @ 3 regions in state Needs/Assets for Cohort II	School year sessions (8 hours) for Cohort I @ 3 regions in state 2 follow-up meetings for Cohort II @ 3 regions in state	School year sessions (8 hours) for Cohort I @ 3 regions in state 2 follow-up meetings for Cohort II @ 3 regions in state	2 follow-up meetings for Cohort II @ 3 regions in state	

Proposed Plan for Preservice and Universal Inservice Teachers Professional Learning (Show Me Literacies Collaborative)

2020	2021	2022	2023	2024	2025
	Jan - April	Jan - April	Jan - April	Jan - April	Jan - April
	Needs/Assets in schools	Shoot video in schools Edit podcasts and videos Web design			

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August	May - August	May - August	May - August	May - August	May - August
		MOOC offering 1	MOOC offering 2	MOOC offering 3	Final program evaluation and analysis
Sept - Dec	Sept - Dec	Sept - Dec	Sept - Dec	Sept - Dec	
	Instructional Design of 6 Modules based on needs/assets report Create podcast with authors	Redesign based on feedback from MOOC Present at Write to Learn Conference	Present at Write to Learn Conference	Present at Write to Learn Conference	



External Evaluation Description

Submitted By:

Andrew Wiley

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Corporate Capabilities Statement

Overview

ACS Ventures, LLC (ACS) was established to address a need in the assessment community for design, evaluation, operational support, and quality assurance. These needs align with the founders' core capabilities and allow them to apply their experiences and knowledge of assessment policy and practice in the education, credentialing, and workforce sectors. The ACS team is committed to providing practical solutions that help organizations ensure the validity, reliability, and fairness of their assessment programs.

Services and Capabilities

The company was founded in 2016 offering services in program and assessment design, evaluation, psychometric analysis, custom research, and validation services (e.g., job analysis, standard setting) for testing programs. Specifically, testing vendors, credentialing program sponsors, state boards of education, technical advisory committees, and international education and credentialing agencies rely on ACS's support to contribute experience informed by industry best practices while balancing practical considerations, policy and legal defensibility within a range of consultative services.

Recent Experience

ACS has partnered with multiple organizations within both the education and credentialing space. In the Education space, we have partnered with organizations such as the Nevada Department of Education, Nebraska Department of Education, Cambridge Language Assessments, and the Central Region Agricultural Education Career Pathway Consortium of California. We have also collaborated with credentialing organizations such as the American Board of Obstetrics & Gynecology, American Board of Dental Examiners, National Conference of Bar Examiners, Florida Board of Bar Examiners, Oklahoma Office of Educational Quality and Accountability, The Irrigation Association, CPA Canada, and many others.

ACS recently completed a multiyear program evaluation for the Nevada Department of Education that was focused on a review of seven educational programs designed to aid and support students, teachers, and schools throughout the state of Nevada. The evaluation activities included interviews with program staff for all of the programs, surveys of staff to help understand how programs had been implemented, and data analyses to investigate whether the programs could demonstrate meaningful impacts on student performance.

Key Staff for this project

ACS's management team members are recognized as industry leaders who contribute to advancement of the assessment community through research and professional service. All members actively contribute to technical advisory committees, national professional organizations, and public forums, sharing their expertise through published works and workshops. Brief bios for the members of the ACS team are provided below.

Staff Bios

Dr. Chad Buckendahl is a Partner at ACS and will serve as the project lead for ACS. Dr. Buckendahl specializes in managing the intersection of policy, practice, and defensibility considerations that are part of assessment programs. His notable works include performances as a co-principal investigator for an evaluation of the Florida Standard Assessment as well as the evaluation of the *National Assessment of Educational Progress* (NAEP). He was the lead scientist in a program evaluation studying seven (7) educational programs for the state of Nevada. He has designed, facilitated, and evaluated standard setting workshops and served on the external technical advisory committee for standard setting for SBAC in addition to contributing to professional literature on the topic. He currently serves as chair of the Accreditation Services Council for the Institute for Credentialing Excellence (ICE), on the Budget and Finance Committee for the National Council on Measurement in Education (NCME), on the editorial board for the *International Journal of Testing* and is the co-editor of recent volume on credentialing sponsored by NCME. Dr. Buckendahl received his Ph.D. in Quantitative and Qualitative Methods in Education from the University of Nebraska, Lincoln and is currently advising on technical committees in multiple states.

Mr. Russell Keglovits is an Assessment Specialist at ACS and will serve as the lead for this project. Prior to joining the ACS team, Russ was an accountability director for a state department of education. He has managed the collection, analysis, and reporting of large-scale assessment data including public reports of state-wide school rankings. Russ's experience includes managing accountability requirements for the state of Nevada, including the completion of program evaluation studies, standard setting workshops, translating policy requirements into reporting systems, and facilitating technical advisory committees. Additionally, Russ is a United States Army Veteran who has over ten years of classroom teaching experience as a licensed educator in two states within secondary and post-secondary institutions. Russ's professional interests include engaging with assessment programs, identifying strengths and weaknesses of the program, and developing through solutions to any identified issues.

Dr. Andrew Wiley is a Partner at ACS whose focus is working with organizations on new or revised program design issues, as well as ensuring the development of test specifications and scoring activities that adhere to industry best-practices. During his career in the assessment industry, he has served as the research lead for nationally recognized assessment programs, such as the SAT and the PSAT/NMSQT

programs and has also worked with numerous assessment organizations in redesigning their current programs to meet new or revised standards. Andrew was a principal investigator in a recent program evaluation for the state of Nevada and also led the independent investigation into statewide assessments in Florida. Dr. Wiley received his Ph.D. in psychometrics from Fordham University and has served on multiple committees for the National Council on Measurement (NCME) and the Association of Test Publishers (ATP), including a term as the Chair of the Board of Trustees. This collective experience provides him with a national perspective on the interpretation of the NCCA and AERA/APA/NVME Test Standards that are essential for credentialing and education programs.

Ms. Kelley Wheeler is a Psychometric Associate at ACS. Prior to accepting a fulltime position, Kelley completed a graduate internship with ACS where she received direct experience working on licensure, certification, and educational validation studies at the state-level. She received her M.Ed. in Measurement, Evaluation, Statistics, and Assessment from the University of Illinois at Chicago. Before beginning a career in assessment, she received her B.S. in Middle / Secondary Education and taught NGSS Biology and Forensics in a Kentucky high school. It was in the classroom where she saw the direct impact that good and informational assessment can have and what inspired her to pursue the field of psychometrics.”

Evaluation Design

In this section we describe an evaluation design framework that addresses the Missouri Comprehensive Literacy State Development Program. We developed the evaluation approach using professional expectations from two sources; specifically, the *Program Evaluation Standards* (3rd ed.) (Yarbrough, et al., 2011) and the *Standards for Educational and Psychological Testing* (American Educational Research Association, American Psychological Association, & National Council on Measurement in Education, 2014). In the section below, we provide an overview of the evaluation activities that will be completed in each year of the Missouri project. It should be noted here that this approach represents an initial framework. We anticipate that the evaluation framework will need to be flexible to reflect the structure and implementation of the program.

Because the proposed program would be new for Missouri, we propose a design that will first involve a review of the program goals, activities, and outcomes. Throughout the first year of the program, the evaluation team will complete a systematic review of the program's theory of change and the inputs, processes, outputs, and outcomes in the logic model. Working with the implementation team, these program components will be identified along with development of a measurement plan. This measurement plan will identify the indicators that will be used to evaluate the component, data collection strategies, and expected analyses. Throughout the life of this project, we anticipate that the measures used to evaluate the effectiveness of the Missouri project will be a combination of information, including program-developed reports, surveys of school and district personnel, interviews with participants, and student assessment data. Once these measures have been identified, the evaluation team will collect data and information from the state, districts, and schools. These data and information will allow the evaluation team to review how well the initial program goals have been met and will also serve to gather baseline information that will help evaluate the effectiveness of the program moving forward.

During the second year of the program, the evaluation team will collect information directly from schools and districts and on how they have implemented the program goals. This data collection will focus on key aspects of the program such as the staffing impacts of the program, professional development activities, and classroom and student activities that have been introduced as part of the initiative. This information will be supplemented by data collection templates that will be shared with program leads to complete on an annual basis to support the seamless and efficient collection of information on program implementation. It will also be supplemented by interviews with school and district staff so that a comprehensive understanding of the implementation activities can be fully understood. In addition to these activities, data will also be collected on student achievement using the measures identified through our review of the initiative's logic model.

During the third and fourth year of the program, survey information from stakeholders will be collected that focuses on the implementation and management of the Missouri project. This information will allow the evaluation team to continuously evaluate the fidelity of the implementation across participating schools and districts. In addition to the survey data collection, student assessment data will also be collected to help evaluate whether the initiative is leading to potential changes in student performance.

Throughout the initiative, student assessment data will be collected and analyzed. When outcomes data are available, the student achievement data will be analyzed using regression discontinuity analysis to help evaluate whether the initiative is having an impact on student performance (Thistlewaite & Campbell, 1960). We propose using a regression discontinuity design that supports interpretations of program impact when there is not a control group. Participation in the research design is based on a forcing variable. Forcing variable values are divided by a cutoff or classification variable with students or schools on one side of the cutoff receiving the intervention and students or schools on the other side contributing as the comparison group. The idea is that students or schools near the cutoff are so similar as to be a sound comparison. After the intervention, regression lines are then computed for both groups – treatment and comparison. Analyses then determine whether changes in an outcome following the implementation of an intervention are discontinuous (i.e., different) between the groups.

In the final year of the evaluation, data will again be collected through a survey of all schools and districts involved in the program. This information will again be supplemented with interviews to allow for a more comprehensive understanding of how schools have implemented the program. In addition to this information, data will also be collected on student achievement which will be analyzed via the regression discontinuity design described above.

REPORTING

Throughout the duration of the project, the evaluation team will be responsible for providing annual reports to DESE. Each year, the report will summarize the activities completed that year, the results of all analyses completed, and key findings from the evaluation. In addition to providing a comprehensive report, the evaluation team will also provide an executive summary that can be utilized by the project team for communication to external entities monitoring the progress of the Missouri project. In addition to providing the written report to the project team, the evaluation team will be available to participate in meetings and other venues to help explain the evaluation activities and results as needed. Finally, all data and information collected by the evaluation team will also be shared with the project team in order to ensure full transparency and allow the project team to complete any additional analyses they believe to be necessary either during or after the project has been completed.

In addition to the annual report that ACS will prepare and provide to DESE, ACS will also prepare an annual report for the federal administrators of the grant. This report will provide all necessary information for the administrators to understand the key activities completed, the data that has been collected, and the results of all analyses performed. This report will be generated to fit the timing and structure requirements of the federal administrators.

APPENDIX F: ABOUT OUR PARTNERS

About the Missouri Language and Literacies Center

The Missouri Language and Literacies Center (MLLC) was established in 2019 through a University of Missouri system grant of \$375,000 to create a national research center to develop understandings of, and educational support for, the Missouri language and literacy needs of the present and future. The overarching goal of the MLLC is to transform education to meet the complex language and literacies needs of the 21st century preK-12 settings. The MLLC seeks to gather University of Missouri scholars from various disciplines and across UM system campuses with invested stakeholders from the Missouri Department of Elementary and Secondary Education (MO-DESE) and Missouri public schools to bring contemporary, research-based understandings of language and literacy into preK-12 classrooms.

The beginning cadre of faculty for the MLLC comes from linguistics, theatre, reading, and preK-12 language and literacy studies. Our interdisciplinary team of lead faculty and affiliate members bring contemporary arts-based learning approaches, extensive linguistics knowledge, decades of reading and writing research and teaching expertise, as well as knowledge in related fields such as journalism and digital storytelling. The MLLC hosts a range of ongoing collaborative projects and professional development opportunities to positively impact language and literacy learning in Missouri schools; its rural, suburban, and urban communities; and beyond. By using a more expansive view of language and literacies, the MLLC not only invests in Missouri teachers' language and literacy content and teaching knowledge but also invests in Missouri's economic and civic future.

About the Missouri Writing Projects Network

The Missouri Writing Projects Network is a collaboration of National Writing Project sites in the state of Missouri. MWPN is firmly committed to the belief that teachers are the key to educational change. The MWPN goal is to increase student learning by improving teaching and learning in all subjects and at all levels throughout the state. Each of the MWPN sites sustains a network of preK-16 teachers offering professional development programs designed by and for classroom teachers. Research results demonstrate that professional development programs designed and delivered by National Writing Project sites have a positive effect on the writing achievement of students across grade levels, schools, and contexts.

About University of Missouri (UM) System

The University of Missouri System supports more than 75,000 students across four universities and serves all 114 counties through extension offices. The mission of the University of Missouri System, as four land-grant universities and Missouri's only public research and doctoral-level institutions, is to achieve excellence in the discovery, dissemination, preservation, and application of knowledge. The four universities include the University of Missouri-Columbia (MU), the University of Missouri-Kansas City (UMKC), Missouri University of Science and Technology (S&T) and the University of Missouri-St. Louis (UMSL). Nearly 6,000 top-quality faculty and researchers work on the campuses of the UM System. The UM System central office eliminates replication of services by centralizing key functions like payroll, benefits management, and IT support, which allows the campuses to dedicate more resources to teaching and research. A key outcome of the system structure is that resources are leveraged systemwide to create efficiencies, which in turn, free campus resources to be used for core mission areas and

strategic priorities, and helps to keep the cost of education affordable and a college degree attainable for all Missourians.

About the Missouri Reading Initiative

The Missouri Reading Initiative (MRI) is a statewide provider of professional development in literacy that was established in 1999 by the Missouri Department of Elementary and Secondary Education (MO-DESE). The program's professional development model is a reflection of research-based standards promoted by the Learning First Alliance (1998), the National Staff Development Council (NSDC, 2002), the Center for the Improvement of Early Literacy Achievement (Birdyshaw, 2001), and the North Central Regional Learning Academy (Hassel, 1999). Originally funded by MO-DESE, MRI now operates independently through revenue from local school districts.

The process and delivery of MRI services are grounded on the principles of quality professional learning following the Learning Forward's Standards for Professional Development (2011). In 2010, a professional development implementation audit (as cited in Missouri Professional Learning Communities Project, 2011) was conducted by MO-DESE and an outside evaluation team headed by Douglas Reeves from The Leadership and Learning Center. From the multi-faceted evaluation, the Missouri Reading Initiative was determined to be one of the top four professional development providers in the state of Missouri because of the program's depth of implementation of professional support and gains in student achievement.