



**ARIZONA DEPARTMENT OF
EDUCATION**

Each reading program will be scored using a rubric. A response must meet **all** the criteria in each scored area to be included on the K-3 MOWR vetted reading program list. Peer Review will be noted but does not disqualify overall approval.

Study: Impact of Content-Rich Literacy Curriculum on Kindergarteners' Vocabulary, Listening, Comprehension, and Content Knowledge

Date of Study: December 2017 or 2018 (i.e., soft start implementing lessons from The Five Senses unit), with full implementation starting in January 2018 or 2019 (for Study 1, Study 2, respectively)

Grade Levels of Study: K

Core Program's Marketed Name: Amplify CKLA

	Rating or Measure Select: Y or N	Rationale
ESSA Evidence Tier	Y	Tier 1
Independent Researchers (Y/N)	Y	Sonia Q. Cabell, Florida State University, Florida Center for Reading Research James S. Kim, Harvard University, Graduate School of Education Thomas G. White, University of Virginia, School of Education and Human Development Charles J. Gale, Harvard University, Graduate School of Education Ashley A. Edwards, Florida State University, Florida Center for Reading Research HyeJin Hwang, University of Minnesota, Department of Educational Psychology at College of Education and Human Development Yaacov Petscher, Florida State University, Florida Center for Reading Research Rhonda M. Raines, Florida State University, Florida Center for Reading Research

Established Measure (Y/N)	Y	<p>An individual battery of student-level assessments of approximately 45 minutes in length was administered by the research team in a 7- to 9-week window in the beginning of the kindergarten academic year (prior to random assignment; October-December 2017, September-October 2018, for Study 1, Study 2, respectively) and in the spring of the academic year (April-June 2018, March-May 2019, for Study 1, Study 2, respectively). All measures except the proximal vocabulary (words taught) and proximal knowledge (knowledge taught) measures were administered at both pretest and posttest windows.</p> <p>Peabody Picture Vocabulary Test- Fourth Edition (PPVT-IV; Dunn & Dunn, 2007)</p> <p>Picture Vocabulary subtest of the Woodcock-Johnson III Tests of Achievement (WJ PVT; Woodcock et al., 2001).</p> <p>Sentence Structure subtest of the Clinical Evaluation of Language Fundamentals- Fourth Edition (CELF SS; Semel et al., 2004)</p> <p>Test of Narrative Language (TNL; Gillam & Pearson, 2004). Narrative Comprehension, the receptive portion of the TNL</p> <p>Generalized content knowledge was measured using the standardized Science and Social Studies subtests of the Academic Knowledge test of the WJ-III Tests of Achievement (Woodcock et al., 2001).</p>
Sample Size	Y	<p>47 schools in two large urban U.S. districts in the Mid-Atlantic and South (1) CKLA: Knowledge (n = 23; n = 11 in Study 1, n = 12 in Study 2), or (2) business-as-usual control (n = 24; n = 12 in Study 1, n = 12 in Study 2).</p> <p>1,194 kindergarten students (Treatment = 232 in Study 1, 333 in Study 2; Control = 312 in Study 1, 317 in Study 2) enrolled in 134 classrooms (Treatment = 24 in Study 1, 41 in Study 2; Control = 29 in Study 1, 41 in Study 2) across 47 schools (Treatment = 11 in Study 1, 12 in Study 2; Control = 12 in Study 1, 12 in Study 2)</p>

		<p>2).</p> <p>82% of students in Study 1 were eligible for free or reduced lunch. About 59% of students in Study 2 were considered economically disadvantaged by the school district.</p> <p>There were no statistically significant differences between treatment and control groups across measures or demographic variables; however, there were a few significant differences between Study 1 and Study 2 participants. In Study 2, there was a greater percentage of White, Hispanic, and multiracial participants and a smaller percentage of Black participants.</p> <p>Attrition was minimal- Of the 1,194 children, three who initially began in the treatment group moved to the control group, and two from the control group moved to the treatment group.</p>
Research Design	Y	<p>Two randomized controlled trials (RCTs)–the second being a conceptual replication of the first in a different district context.</p> <p>Cluster randomized controlled trial (RCT)</p>
Outcome	Y	<p>After approximately one semester of curricular implementation, CKLA: Knowledge demonstrated a positive and significant impact on vocabulary, both for words taught in the curriculum and for general expressive vocabulary. Significant interactions were found for proximal measures of vocabulary and knowledge, such that children who began the year with relatively higher receptive vocabulary scores derived a greater benefit of learning the words and content knowledge taught in the curriculum</p> <p>As indicated in Table 2, no statistically significant differences were observed on pretest measures between treatment and control groups within the full sample, or within study 1 and study 2 separately.</p>
Effect Size	Y	<p>Results revealed a statistically significant main effect of treatment on the proximal measure of vocabulary on the words that were explicitly taught in the curriculum (CSVT) such that those in the treatment group performed .63 standard deviations higher on average than those in the control group</p>

		(ES = .63, p < .001). Results revealed statistically significant treatment effects on the proximal measure of knowledge about Native Americans with a very large effect size such that on average those receiving the CKLA intervention performed 0.93 standard deviations higher than those in the control group (ES=0.93, p<.001).
*Peer Review (Y/N)	Not Yet	Currently undergoing this process.

MOWR Committee completed review.

MOWR Committee findings:

- Meets ESSA Evidence Tier 1.
- Will remain on the MOWR Core Program Vetted List.