Logic Model for Connecticut Partnership to Support Multilingual Learner Mathematics Outcomes

Problem Statement: Mathematics teachers in Connecticut have not yet been equipped with adequate resources and training to ensure access to rigorous mathematics learning opportunities for the multilingual learners (MLLs) in their classes, with results reflected in recent standardized assessments. In 2018/19, about 5 percent of middle grade MLLs met or exceeded the CT Smarter Balanced Assessment for Mathematics, and nationally MLLs' scores are significantly below those of non-MLLs on NAEP and statewide assessments. In Connecticut there are few professional development opportunities for teachers to better support MLL students' successful mathematics participation and learning. Therefore, there is a need to better support teachers to ensure MLLs' successful mathematics participation and learning.

General inputs: Existing research and evidence-based practices; federal and state regulations, statutes, and guidance; EDC and partners' engagement and expertise; Connections to other networks and stakeholder groups; EDC's commitment to equity and culturally responsive practices; collaboration tools; virtual meeting tools

Activity-specific inputs	Activities	Outputs	Short-term Outcomes	Medium-term Outcomes	Long-term Outcomes
• Facilitation, project management, content experts	**(Y1) Develop partnership** **(Y1–5) Sustain partnership** through quarterly meetings to review logic model, plan and execute activities, and monitor progress	Sustained partnership with engaged members	Partners understand the research and have access to evidence-based resources to build math leaders/educators' capacity to serve MLLs. Partners build connections across agencies/organizations.	Partners use research & evidence-based resources to support math leaders & educators to implement evidence-based mathematics instruction for MLLs. Participating districts implement practices from their logic models and action plans to facilitate teachers' work with MLLs. Partners/participants share resources, findings and implications statewide to provide supports to MLL teachers in middle grades mathematics.	Middle grades educators in at least half of CT districts have participated in learning opportunities related to instructional practices for MLLs in mathematics. By 2026, there will be a demonstrable increase in the percent of middle grades MLLs in participating districts who meet or exceed standards on the Smarter Balanced mathematics assessment.
• Participant access to their student data • Content and training experts • Structured PD time for leaders • District data (e.g. assessment data, student work, attendance data) • Evidenced based resources	**(Y1–2) District leader training:** Building capacity for middle grades math leaders to support MLLs	Workshop agenda and materials District logic models District action plans	Participants have greater capacity to develop logic models & action plans to provide evidence-based instructional opportunities for MLLs. Participants increase knowledge of district data & evidence-based resources to inform logic models & action plans.		

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• Student & educator data • Content, research, & methods experts; Plain Language editors • Incentives for RCT • Structured teacher PD time	**(Y1–3) Research study:** Visual representations for proportional reasoning: Impacts of teacher PD program for MLLs and other students.	Participating teachers receive VAM PD Trained co-facilitators Report	Participating teachers increase content knowledge of number/computation, notably proportional reasoning. Participating teachers increase ability to analyze student thinking related to proportional reasoning.		
• Action plans • Content & training experts • Structured PD time for school/district staff	**(Y4–Y5) School and district leader coaching**: Scale up! Supports for MLLs in mathematics statewide	Coaching materials Plan to scale resources for teachers	Participating districts understand evidence-based practices and can access evidence-based resources to support MLLs in mathematics classrooms.		
• Communication, editing, data visualization experts • Dissemination channels, partner networks, social media	**(Y1–Y5) Dissemination:** Handouts, webinars, conference presentations, stakeholder briefings, blogs, social media	Knowledge use/spread materials & meetings	Partners/participants understand study findings & implications and have access to resources to support districts.		