



# Math Unit Probe EL Adaptation Protocol

## EXCEL LEADERSHIP ACADEMY: DLLP/MATH WORKING GROUP

**PURPOSES:** Developing a protocol for adapting math start-of-unit district probes to capture English learners' math and language knowledge. Supporting teachers to take control of their classroom assessments to generate more usable knowledge of their students' math understanding and English language progression.

**PROBLEM OF PRACTICE:** Original district math probes do not generate responses (oral or written) from young English learners. Teachers cannot tell if a student has the math concepts being probed or if they do not yet have the language to express themselves. Probes need to be adapted to allow students to respond in ways that generate useful information for teachers so they can differentiate future instruction.

**WORKING GROUP COMPOSITION:** Classroom teacher(s), ESL coordinator/coach, curriculum specialist/school leadership, language/content researcher, and project leadership (observer).

**RECOMMEND FUTURE TEAM COMPOSITION AND ROLES:** An ideal working group will consist of a cross-section of educators, including classroom teachers, ESL coordinator/coach, curriculum specialist/school leadership. Roles for each team member include, but are not limited, to the following tasks.

- Classroom teachers: implement assessment probes, record student responses to assessment and instruction, share student responses with the group for reaction and feedback, help to revise probes and identify next steps for instruction (math & language)
- ESL coordinator/coach: supports teachers in all tasks, especially for those involving EL students; helps to coordinate/ manage meetings and identify next steps for instruction (math and language)
- Curriculum specialist/school leadership: provides content expertise in revising probes; helps interpret student responses and results; coordinates and manages meeting times and meeting logistics

## PROCESS & CONTENT OF ADAPTATIONS:

**STEP 1:** Review original district start-of-unit probe(s) and the grade (and prior grade) standards relevant to the probe(s).

**STEP 2:** Review student (English learners & sample of Non-EL) responses to the original unit probe(s).

**STEP 3:** Discuss the apparent barriers to the probe(s) comprehension by students (e.g., was wording too complex/simply too wordy, vocabulary choices likely unknown, content biased or likely not relevant/interesting/familiar to culturally and linguistically diverse students, visuals confusing or not used in support of responses).

**STEP 4:** Teacher/ESL coordinator/coach rewrite the probe(s) to modify/remove any identified barriers from Step 3 – full team reviews/responds with suggested tweaks until initial consensus is built on the adaptations.

**STEP 5:** Teacher administers adapted probe(s) to students (English learners and sample of Non-EL).

**STEP 6:** Discuss the responses. The goal is to elicit responses from students (even if non-verbal e.g., pointing, circling a correct image etc.) to work with further i.e., teachers are able to make inferences about the students' math knowledge and also what language they will need to express that understanding during the unit's instruction. Iterate Steps 3-5 as necessary.

## COMPANION STEPS:

**TEACHER FORMATIVE ASSESSMENT OF MATHEMATICS LANGUAGE:** Apply the DLLPs to student responses to create a better understanding of the students' phases and progressions of topic vocabulary, sentence structure and discourse features.

**MATCHING ADAPTATIONS TO TEACHING:** Video record and discuss teaching using facilitative discourse moves that support student thinking and talking about mathematics content. Monitor if information from probes is improving/sharpening clarity in instructional responses to English learners.