## 1135-G1-2864 Carren Senn Walker\* (carren@me.com), CRMSE, 6505 Alvarado Rd. #201, San Diego, CA 92129, William Zahner, CRMSE, 6505 Alvarado Rd. #201, San Diego, CA 92120, and Lynda Wynn, CRMSE, 6505 Alvarado Rd. #201, San Diego, CA 92120. Examining the Development of the Concept of Slope in one CCSSM-aligned Secondary Mathematics Text with a Focus on Enhancing Access for Linguistically Diverse Students. Preliminary report.

We present the results of our conceptual analysis of linear slopes as represented in one Common Core-Aligned Secondary Mathematics Text (Cuoco & Kerins, 2013) as part of a project to redesign secondary mathematics content for greater accessibility for linguistically diverse learners. To experts, the slope of a line might appear as a single, unified concept. Yet, our analysis revealed three distinct conceptions of slope as developed in the text. Each of these three conceptions induces different forms of mathematical and linguistic complexity. One conception is slope as a measure of steepness. This conception quantifies everyday terms like "steeper" and "flat." A second conception is slope represents a rate of change in a quantitative relationship. This conception is realized in graphs of real-world contexts, and connects to calculus concepts. Third, the slope can be conceptualized as an invariant property of collinear points. This conception emphasizes the idea of constant slope and collinear points. In our analysis, we explore the affordances and constraints of these three conceptions and, in particular, we consider the conceptual and linguistic demands for each conception of the slope of a line. (Received September 26, 2017)