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READING MATHEMATICS: A HOLISTIC CURRICULUM APPROACH

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Reading mathematics is a necessary skill to have when learning undergraduate mathematics. However, students typically struggle with reading mathematics effectively (Shepherd, Selden and Selden, 2012). One difficulty that we recognised as related to this is the acknowledged limited time available in university for students to sufficiently objectify the concepts that they learn (Alcock and Simpson, 2009). We considered that a possible solution to foster better mathematics reading among our students is through a holistic curricular approach that involves many lecturers across the full duration of a four-year undergraduate programme.

In this oral communication we describe our ongoing attempt to teach mathematics reading to mathematics majors in a Bachelor of Science (Education) programme as part of a holistic curricular approach. We begin with presenting the learning objectives that were identified in the curriculum review process related to mathematics reading. We then proceed with sharing how the curriculum was implemented during the July 2016 semester for Year 1 students in the Linear Algebra I and Calculus I courses. The two lecturers involved drew upon suggestions from literature (e.g., Weber, Brophy and Lin, 2008) of strategies to nurture effective mathematics reading among students. As part of evaluating our initiative, we report on the students' performance in their final assessment particularly for items that were related to mathematics reading.

In general we are encouraged both by the enthusiastic participation of the faculty members in the curriculum review process and also the acceptable performance of students in demonstrating their understanding of new mathematical concepts. But we also gained insights into how to improve or proceed with our efforts at developing mathematics reading in our programme. We will share these during the presentation.

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