

Synopsis

This video explores the relationship between language and mathematics, and ways to support learners when they are learning mathematics content in a second language.

Research has suggested that language is an integral part of "doing" mathematics (e.g., Halliday, 1978; Pimm, 1987) and this includes school mathematics. Mathematics and language work together in complex ways that serve to deepen learners' understanding of both.

Several strategies for supporting communication, and language and mathematics learning are highlighted in this video (e.g., Brummer & Kartchner Clark, 2014; NCTM, 2010; Posamentier et al., 2007). Attention to vocabulary, problem solving, visual aides, hands-on activities, real-life materials, small groups, variety, and an understanding of the affective environment, are all important for teachers who have the dual role of teaching second language and mathematics.

Professional Learning Conversation Guide



Second Language Research Institute of Canada Institut de recherche en langues secondes du Canada IR C RIC

Supporting Mathematics and Second Language Learning Intentional Language Teaching Series <u>Video 6</u>

Pre-Viewing Activation Questions:

- Is mathematics language-free? Or is mathematics a "universal language"? Or is mathematics both, or neither?
- 2. What are your favourite and most effective strategies or tasks for encouraging learners to communicate in your second language mathematics class? Why are these strategies and tasks so effective?

Post-Viewing Extension Questions:

- 1. Why is attending to language important in mathematics class and especially when learners are learning this content in their second language?
- 2. How might you use the strategies presented in the video in your own second language mathematics class?

Selected Resources:

Brummer, T., & Kartchner Clark, S. (2014). Writing strategies for mathematics (2nd ed.). Shell Education.

Posamentier, A.S., Jaye, D., & Krulik, S. (2007). Exemplary practices for secondary math teachers. ASCD.