

## Collaborative problem-solving: An initial analysis of the role of prompts to support online learners in mathematics

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Collaboration has been shown to be beneficial when problem solving in mathematics (Retnowati et al., 2017); however, it is difficult to achieve this collaboration in an online teaching and learning environment. As part of a project focused on exploring the potential of 360degree video to support and develop online learners’ collaborative problem-solving experiences, the authors have video recorded groups of university mathematics students undertaking group problem solving. In the initial analysis of this 360degree video data, the theme of external (to the group) and internal (to the group) prompts emerged. We will present two examples of the ways prompts supported students to persist with working on their problem.

### References

Retnowati, E., Ayres, P., & Sweller, J. (2017). Can collaborative learning improve the effectiveness of worked examples in learning mathematics? *Journal of educational psychology*, *109*(5), 666.

2021. In Y. H. Leong, B. Kaur, B. H. Choy, J. B. W. Yeo, & S. L. Chin (Eds.), *Excellence in Mathematics Education: Foundations and Pathways (Proceedings of the 43<sup>rd</sup> annual conference of the Mathematics Education Research Group of Australasia)*, p. 441. Singapore: MERGA.