INVESTIGATING STUDENTS' ENGAGEMENT WITH TEACH-FIRST AND TASK-FIRST LESSON STRUCTURES INCORPORATING CHALLENGING MATHEMATICAL TASKS

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THEME:

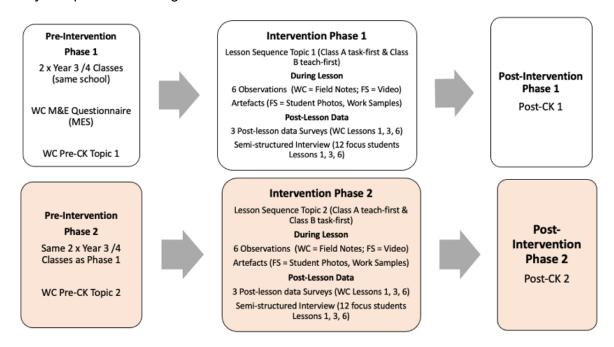
Engaging students in STEM education

BACKGROUND AND AIMS

The focus of this study is on how variation in the structure of lessons (Task-first and Teach-first) that incorporate challenging tasks impacts student engagement and learning of mathematics, from the students' perspective. Because students are directly impacted by the extent to which they engage during a lesson, it is important to explore their perspectives of what they find engaging instead of simply inferring them from teacher-reported data (Russo & Hopkins, 2019).

METHODOLOGY OR PROCESS(ES) UNDERTAKEN

This intervention study will adopt a qualitative, exploratory design with multiple data sources including questionnaires, lesson observations, survey methods and post-lesson semi-structured interviews with two classes of Year 3 and 4 students (approx. 2 groups of 25 students aged 8-10 years) from one primary school in NSW. The overarching design of the study is represented in Figure 1.



T = Topic; WC = Whole Class; FS = Focus Student; CK= Content Knowledge Test

Figure 1. Visual overview of data collection methods and process

2022. J. Bobis & C. Preston (Eds.), Proceedings of the 7th International STEM in Education Conference (STEM 2022), University of Sydney, Sydney, Australia, November 23-26. University of Sydney.

REFERENCES Russo, J., & Hopkins, S. (2019). Teaching primary mathematics with challenging tasks: How should lessons be structured? The Journal of Educational Research, 112(1), 98–109.