

Raising Teacher Expectations of Students' Capabilities by Examining Student Work Samples

Geraldine Caleta

Catholic Education Diocese of Parramatta
gcaleta@parra.catholic.edu.au

Tammy Roosen

Catholic Education Diocese of Parramatta
troosen@parra.catholic.edu.au

Teachers in 28 Catholic Education Diocese Parramatta (CEDP) schools, Australia were involved in the EMC³ Research Project. Within the project teachers were using an Instructional Model for Student-Centred Inquiry when implementing challenging tasks. An obstacle for teachers is having high expectations for student learning, beyond those associated with the New South Wales syllabus requirements.

This project involved teaching educators employed by CEDP working in project schools to support the implementation of the instructional model to engage students in challenging tasks. After co-teaching in classrooms, we analysed student work samples with the teachers to look for evidence of knowledge transfer between tasks and across a sequence of lessons. We found that K-2 students were able to make the connection between the learning from one task to another. The students were able to show a clear understanding of the big mathematical ideas leading to abstraction.

For example, when 5, 6- and 7-year-old students attempted a sequence of tasks on *Making Things Equal*, they began by moving “cakes” from one plate to another in various ways to make both plates equal. Students were able to imagine many possibilities that were not anticipated by teachers and were able to write matching equations, even though that was not an expectation of the NSW syllabus at this stage. Teachers were surprised by students' mathematical thinking, reasoning and recording, and initially considered this particular sequence to be too difficult for students in their first years of schooling.

We noticed that by raising the expectations of teachers and focussing on what students could do, deeper learning was evidenced in the work samples. We conjecture that if teachers have high expectations and are able to pose challenging tasks without “telling”, students will be more open to taking risks with their learning. This would enable teachers to focus on the learning presented in the work samples rather than the performance of individual students (Sullivan et al., 2020), and recognise the learning gains that can be made by all students by engaging in challenging tasks. This is an aspect that we wish to research in the future, with the support of our academic partners.

References

Sullivan, P., Bobis, J., Downton, A., Livy, S., McCormick, M., Hughes, S., & Russo, J (2020). Characteristics of learning environments in which students are open to risk taking and mistake making. *Australian Primary Mathematics Classroom*, 25(2), 3–7.

2022. N. Fitzallen, C. Murphy, V. Hatisaru, & N. Maher (Eds.), *Mathematical confluences and journeys* (Proceedings of the 44th Annual Conference of the Mathematics Education Research Group of Australasia, July 3–7), p. 583. Launceston: MERGA.