# ENGAGING IN A CULTURALLY RELEVANT MATHEMATICS PEDAGOGY: THE JOURNEY OF A PRE-SERVICE TEACHER

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## THEME:

Engaging students in STEM Education

## BACKGROUND AND AIMS

Students are often uninterested in how math is presented to them in a typical traditional classroom setting. With the first author being a beginning teacher in their first practicum, they wanted to make mathematics more relevant to their students. One avenue we responded to this was through the first author, researching and implementing a Culturally Relevant Mathematics Task (CRT). Drawn largely on Ladson-Billings', (1995) Culturally Relevant Pedagogy (CRP) with the key tenets of students developing academic success, cultural competence, and critical consciousness.

The first author's practicum took place in a Junior High School, and the CRT was implemented in a culturally diverse Grade Eight Math class. The task was designed around a student-led fundraising effort of selling home-made soap, which was connected to the mathematical concept of linear equations. After implementing the task, student work was collected, analyzed, and reflected upon. Narrative inquiry is employed as a methodology to share the first author's experiences of implementing the CRT math task in the classroom. Narrative Inquiry positions "humans as storytelling organisms who, individually and socially, lead storied lives" (Connelly & Clandinin, 1990, p. 2). We draw on the storytelling tradition of narrative inquiry to illuminate the lived experiences of a beginning teacher in implementing CRT math tasks and the journey through learning about CRP during a five-week teaching practicum.

## RESULTS AND CONCLUSIONS

Results indicate that students became more engaged not only in the mathematical concept of linear equations but also on critical social economic issues such as homelessness and providing for the less fortunate. This implies that student's funds of knowledge could potentially be used as precursors in igniting engagement with both mathematical and social/critical concepts. Hence, this narrative pushes for teachers to pay more attention to students' lived experiences and utilize students' prior experiences as funds of knowledge for creating contextualized and meaningful mathematics problems that connect to students' "real world" (Matthew, Jones & Parker, 2013, p.148).

The implementation of the CRT math task offered both challenges and opportunities; 1) the struggle to create a task that equally emphasized academic and cultural relevance. 2) time constraint to allow students to engage in-depth discussion of the math concepts and the relevant social connections. However, the experience of trying a new pedagogy (CRT) in a classroom afforded the first author the opportunity to envision how they may continually engage with the concepts of CRT in future practice.

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


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