What is this research about?
This study reports on a set of collaborative inquiry projects aimed at exploring teaching mathematics for social justice in one urban elementary school in Toronto. The researchers define teaching mathematics for social justice in terms of six principles:

- enabling a community of learners,
- building on students’ cultural interests,
- teaching skills,
- working with families and communities,
- diversifying assessment,
- and making activism explicit (Cochran-Smith, 2004).

Specifically, this research article reports on the following 3 collaborative inquiry projects:

1. **The Water Project** (grade 5)—taught volume and capacity using water, and integrated the concept of water as a human right;

2. **The Language Project** (grade 4)—taught data management using data about the many different languages spoken in Canada;

3. **The Number Book Project** (grade 2 & Kindergarten)—used appropriate math practices for English language learners (ELL’s) and connected math to the larger community.

What did the researchers do?
The researchers invited teachers from an underperforming inner city school to participate in this study. The school, with

What you need to know:
This article reported on a set of collaborative inquiry projects aimed at exploring teaching mathematics for social justice. Aspects of the projects that contributed to the development of communities of learners committed to social justice issues are discussed.
a student population of 450 students from grades K-5, was already part of a district initiative aimed at improving students’ literacy and numeracy and was also one of seven schools that was provided with extra funding to help teachers share their practices with other local schools.

The researchers met with participants monthly to identify teachers’ issues and concerns related to teaching math for social justice, to develop the projects and to reflect on implementation.

The researchers collected data primarily from two sources; notes taken during monthly planning meetings with participants and a video-recording of the final meeting, in which each group reported on their projects. Data analysis focused on the extent to which each of the projects exemplified the six principles of teaching for social justice (listed above).

**What did the researchers find?**
The researchers found that:

- All three projects contributed to the formation of communities of learners. Teachers in all projects shared a common goal and took responsibility for shared learning around this goal. The Languages project saw students forming a collaborative community as they each contributed a portion to the larger project;

- All three projects built on student and community interests and knowledge, sometimes in unexpected ways. For instance, some students in the water project shared stories of having to carry clean water to their families when living in their home country. Likewise, students in the languages project were proud to represent their native language on the data charts;

- The water project, in particular, explicitly tackled issues of inequity by considering the lack of access to clean water in some areas;

- The year following the project, many of the teachers continued their commitment towards teaching math for social justice.

The researchers concluded that having teachers involved in a research-based project in their classroom created a strong foundation for a continued professional
learning community about mathematics, social justice, and education.

How can you use this research?
Teachers and administrators may wish to consider:

- additional research on the creation of communities of learners focused on teaching for social justice;
- encouraging teachers to collaboratively work towards addressing social justice issues;
- seeking out professional development opportunities related to social justice.

Original article:
To learn more about this study, we invite you to read the original research article:


Other references:

About the researchers:
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Mathematics education, social justice, elementary education, evidence based practice, professional development, teacher collaboration, researcher-teacher collaboration, university-school collaboration, teacher research.
About this summary

The Ontario Education Research Exchange (OERE) is a project of the Knowledge Network for Applied Education Research, an Ontario network promoting the use of research in education. The OERE’s clear language summaries of academic research aim to support this mandate.

This summary has been adapted from the ResearchSnapshot series developed by York University and ResearchImpact and has been developed according to writing and design principles unique to OERE. For more information about this summary or the OERE network please contact oere.knaer.oise@utoronto.ca.

This summary reflects findings from this study only and is not necessarily representative of the broader body of literature on this subject. Please consult the original document for complete details about this research. In case of any disagreement, the original document should be understood as authoritative.