

## DOING 43 TIMES 12 WITH LOVE

David Wagner

University of New Brunswick, Canada

Gutstein and Peterson (2005) juxtaposed two word problems to illustrate how mathematics teachers might address social/ecological/justice issues. First: “A group of youth aged 14, 15, and 16 go to the store. Candy bars are on sale for 43¢ each. They buy a total of 12 candy bars. How much do they spend, not including tax?” (p. 6). Second: “Factory workers aged 14, 15, and 16 in Honduras make McKids children’s clothing for Walmart. Each worker earns 43 cents an hour and works a [12-hour shift] each day. How much does each worker make in one day, excluding any fees deducted by employers?” (p. 6). The authors promoted the second problem.

Is McKids clothing real? Is 43 cents a real wage there? Do 14-year-olds work in factories? It does not matter because the word problem expects students to ignore these things, to find the relevant numbers and ultimately multiply 43 by 12. Gerofsky (1996) showed how the tradition of mathematical word problems treats context as a throw-away. I question the appropriateness of using the word problem tradition to introduce truly complex and significant contexts such as child labour and sweat shops. Training children to ignore (throw away) such violence undermines the potential of mathematics to engage with real social and ecological challenges.

To support a more context-responsive and responsible mathematics pedagogy, I am collecting narratives from a wide range of individuals who tell of times they did mathematics with love. For example: “I developed a formula for distributing finite funds equitably among doctoral students to encourage further funding applications while also favouring students with no other funding. It had to be simple enough to be understood by all.”

A challenge in this endeavour is to define love because it means different things for different people and the definition may differ according to the mathematical activity. The paucity of mathematics education literature identifying love generally addresses a relationship with the discipline—either love or hate. Long (2011) looked to the caring relationship between teacher and student. I am looking for further possibilities.

### References

- Gerofsky, S. (1996). A linguistic and narrative view of word problems in mathematics education. *For the Learning of Mathematics*, 16(2), 36-45.
- Gutstein, E. & Peterson, B. (2005). *Rethinking mathematics: Teaching social justice by the numbers*. Milwaukee, WI: Rethinking Schools, Ltd.
- Long, J. (2011). Labelling angles: Care, indifference and mathematical symbols. *For the learning of mathematics*, 31(3), 2-7.