BSRLM Conference – 4th November 2023 (Bristol)
Critical Mathematics Education Working Group

Terms of reference:

The CME Working Group (launched in November 2015) is open to all and aims to promote research that brings about positive social change through mathematics education. CME aims to identify and challenge ways in which mathematics is commonly used to maintain the status quo and reproduce inequities in society. It proposes an alternative and empowering conceptualisation of mathematics, which enables people to better understand their social, political and economic situations, and to advocate and bring about changes leading to a more just and equitable society.

Critical Mathematics Education (CME) Working Group - discussion on ‘What are the implications of Freire’s ideas for the mathematics classroom?’

This is an opportunity to discuss how researchers, educators and teachers might draw on Freire’s ideas, including ‘praxis’, ‘conscientization’, ‘reading and writing the world’ and ‘critical pedagogy’, to inform their practice. Bring along your ideas to share or just come along to learn more about how Freire’s ideas might inform your practice. Attendance is optional, of course, but remember that “washing one’s hands of the conflict between the powerful and the powerless means to side with the powerful, not to be neutral” (Freire, 1985).

Discussion prompt 1

Aspects of Freire's critical pedagogy:

- 'praxis': connecting reflection and action.
- 'conscientization': developing a greater understanding of own situation/oppression.
- 'reading and writing the world': using knowledge to gain greater control over own situation.
- 'dialogic' model of teaching/learning, as opposed to 'banking' model of teaching/learning.
- 'critical' awareness, rather than 'naïve' awareness.
- 'radical' desire to empower others, rather than 'dogmatic' desire to superimpose solutions.

What are the implications for existing practice in maths classrooms?

Discussion prompt 2

"Applying Freire's theory to mathematics education directs our attention to how most current uses of mathematics support hegemonic ideologies, how mathematics education also reinforces hegemonic ideologies, and how critical mathematics education can develop critical understanding and lead to critical action." (Frankenstein, 1983, p. 325).

How does this relate to existing practice in maths classrooms?

Discussion prompt 3

"Gutstein (2006) argues that students need to be actively engaged in social action, for example by campaigning on the issues they are exploring with mathematics, in order to develop agency. However, this is not always feasible in a classroom setting. The [Teaching Maths for Social Justice] research project demonstrated how teacher researchers enabled their students to take decisions regarding their own learning, to make use of mathematics to better understand an issue of their choice and strengthen their arguments for a change they would like to see made. This offers a pragmatic approach to promoting students' agency that prepares them to engage in social action in their future lives."
(Wright, 2017, p.13).

Is this pragmatic approach to developing student agency enough?

References:

Frankenstein, M., 1983. Critical mathematics education: An application of Paulo Freire's epistemology. *Journal of Education*, 165(4), pp. 315-339.

Freire, P., 1972. *Pedagogy of the oppressed*. London: Penguin.

Freire, P., 1974. *Education for critical consciousness.* London: Sheed & Ward.

Freire, P., 1985. *The Politics of Education: Culture, Power and Liberation*. Bloomsbury

Wright, P., 2017. Critical relationships between teachers and learners of school mathematics, *Pedagogy, Culture & Society*, 25(4), pp. 315-330.