

# ENGAGING STUDENTS IN MATH THROUGH SOCIAL JUSTICE TIKTOK

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## THEME

Engaging students in STEM education

## BACKGROUND AND AIMS

This paper offers a possible solution to increase student engagement with mathematics by focusing on integrating social justice topics within the curriculum through social media. The use of social media, specifically TikTok, provides an alternative platform to attract and engage students with global issues and further develop their understanding and use of math to solve problems, as well as understanding the ethical use of technology. Through increased project-based instruction, students use mathematics to critically think, and problem solve global issues while building and strengthening their sense of belonging with their local, regional, and international communities.

## METHODOLOGY OR PROCESS(ES) UNDERTAKEN

Results and conclusions were derived through a literature review that evaluated case studies, educators' and philosophers' offering of critical pedagogy, as well as available resources for classroom use. Further research through personal classroom implementation was conducted to understand the opportunities and challenges social media presents, and methods for inclusion and relevance within a classroom setting.

## RESULTS AND CONCLUSIONS

The proposed framework is intended to help districts and schools integrate social justice topics within a math curriculum. The use of social media is aimed at engaging students and helping them to prioritize mathematical literacy to understand data and be critical of its origin. It is no longer sufficient for students to "just learn math" without understanding its role and purpose in our environment. Inspired by the writings of Bartell (2013), Gutstein (2006), and Skovsmose (1994), using mathematics to communicate injustices, and learning to use mathematics to make predictions, will result in a new story being written. The following diagram illustrates a framework to incorporating social justice within a math curriculum.



**Figure 1. Framework for incorporating social justice issues within a mathematics curriculum**

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

- Bartell, T. G. (2013). Learning to teach mathematics for social justice: Negotiating social justice and mathematical goals. *Journal for Research in Mathematics Education*, 44(1), 129-163.
- Gutstein, Eric. (2007). "And that's just how it starts": Teaching mathematics and developing student agency. *Teachers College Record*. 109. 420-448.
- Skovsmose, O. (1994). Towards a critical mathematics education. *Educational Studies in Mathematics*, 27(1), 35-57.