## ARE SCIENCE GRADUATES 'CLIMATE-READY'? ASSESSING UNDERGRADUATE CLIMATE CHANGE EDUCATION THROUGH STUDENT PERCEPTIONS OF EMPOWERMENT, UNDERSTANDING AND CLIMATE ACTION

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Climate change presents a rapidly progressing, unprecedented, and enduring challenge that threatens our existence. To avoid the worst outcomes of human-caused climate change, strong and sustained action is needed across all sectors of society.

Quality climate change education can work to empower and engage youth in the actions and policies needed to avoid the most extreme effects of climate change (UNFCCC, 2015). However, there remains a knowledge gap in how effective climate change education is at achieving this goal.

The analysis of student perceptions towards their education in climate change science can highlight the strengths and weaknesses in the current curriculum and if addressed, may improve graduates' ability to become change-makers in their careers, as 'climate-ready' graduates.

This study surveyed 112 undergraduate science students (completing second- or third-year units) at Monash University's Clayton campus aiming to assess 'climate-readiness'. The mixed methods survey was based on frameworks for quality climate change education (Mock COP, 2023; COY17, 2022).

I will discuss the importance of climate change education in creating a just transition to a sustainable future, and how 'climate-readiness' differs across majors at Monash University and across students' climate change attitude profiles (Chryst et al., 2018).

## **REFERENCES**

Chryst, B. et al. (2018) 'Global Warming's "Six Americas Short Survey": Audience Segmentation of Climate Change Views Using a Four Question Instrument', *Environmental Communication*, 12(8), pp. 1109–1122. Available at: <a href="https://doi.org/10.1080/17524032.2018.1508047">https://doi.org/10.1080/17524032.2018.1508047</a>.

COY17. (2022) 'COP27 Global Youth Statement Declaration for Climate Justice.' [online] YOUNGO. Available at: https://coy17eg.com/wp-content/uploads/2022/11/GYS-2022-V.-Z.pdf.

Mock COP. (2023) 'Youth Statement on Quality Climate Education.', [online] Mock EMS. Available at: <a href="https://www.mockcop.org/site/uploads/2023/08/Mock-EMS-unified-youth-statement.pdf">https://www.mockcop.org/site/uploads/2023/08/Mock-EMS-unified-youth-statement.pdf</a>.

UNFCCC (United Nations Framework Convention on Climate Change). (2015) 'Paris agreement. In report of the conference of the parties to the United Nations framework convention on climate change (21st session, 2015: Paris)', HeinOnline, 4, p.2017.

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