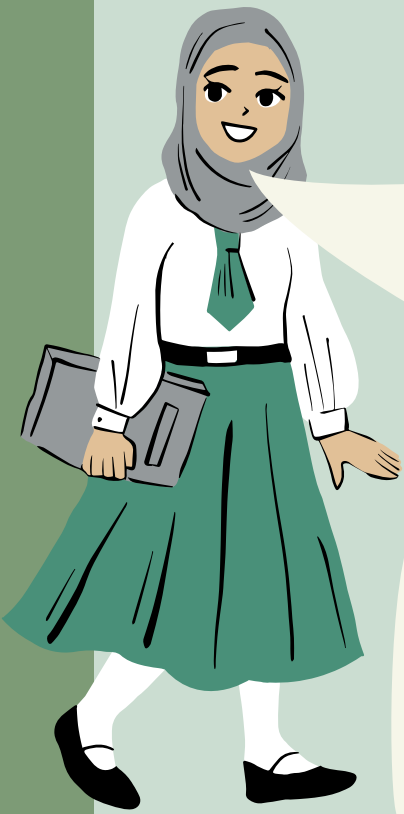


To what extent can graphic novels support 'non-beginner' English as Additional Language (EAL)-learners in developing their curiosity, focusing on the climate crisis?



The KS3 National Curriculum describes geography's purpose as inspiring "curiosity...with the world and its people" (DfE, 2013). Curiosity is associated with improved academic performance, heightened enthusiasm, and question-generation (Shah et al., 2018).

Graphic novels, as creative and visual media, ignite curiosity (Hoare, 2019). Taking the "risk of representation" (Chute, 2016 p.5), they help teach controversial issues, like climate change (Fry, 2018), fostering empathy.

Using images and text (Sou & Hall, 2021), graphic novels aid students with diverse language proficiencies, becoming innovative adaptive tools for EAL-instruction.



Findings

- Knowledge recall, including Tier 3 vocabulary (Biggs, 2017), demonstrated learning progression into long-term memory (Enser, 2020).
- 86% of students correctly defined 'climate change adaptation' by the end, up from 43%.
- Audible enthusiasm during questioning signalled heightened curiosity.
- EAL-learners could describe physical and human impacts of climate change.
- Students empathised with those disproportionately affected by climate change, making connections. For instance:

Student B - "Poor people are most affected by climate change, unfairly forced to adapt..."

Student D - "People in LICs are affected most, this isn't fair...they don't have resources/money to repair."

Reflections

When prompted, four EAL-learners from a Pakistani background asked questions about Pakistan (**Figure 1**). 'Personal geographies' (Doyle, 2019) could further spark curiosity, mobilising students' 'everyday knowledge' (Roberts, 2014).

Combining an enquiry approach and 'personal geographies', graphic novels set "learning in a familiar context" (Doyle, 2019 p.12) and convey social narratives, amplifying the voices of those impacted by climate change (Sou & Hall, 2021). Thus, graphic novels help decolonise educational content (Reilly, 2022).

Multi-media narratives invigorate curiosity, nurture empathy, and promote geographical thinking.

Figure 1: What questions do you have about climate change?

Students A and D

"How is Pakistan adapting to climate change?"

Student B

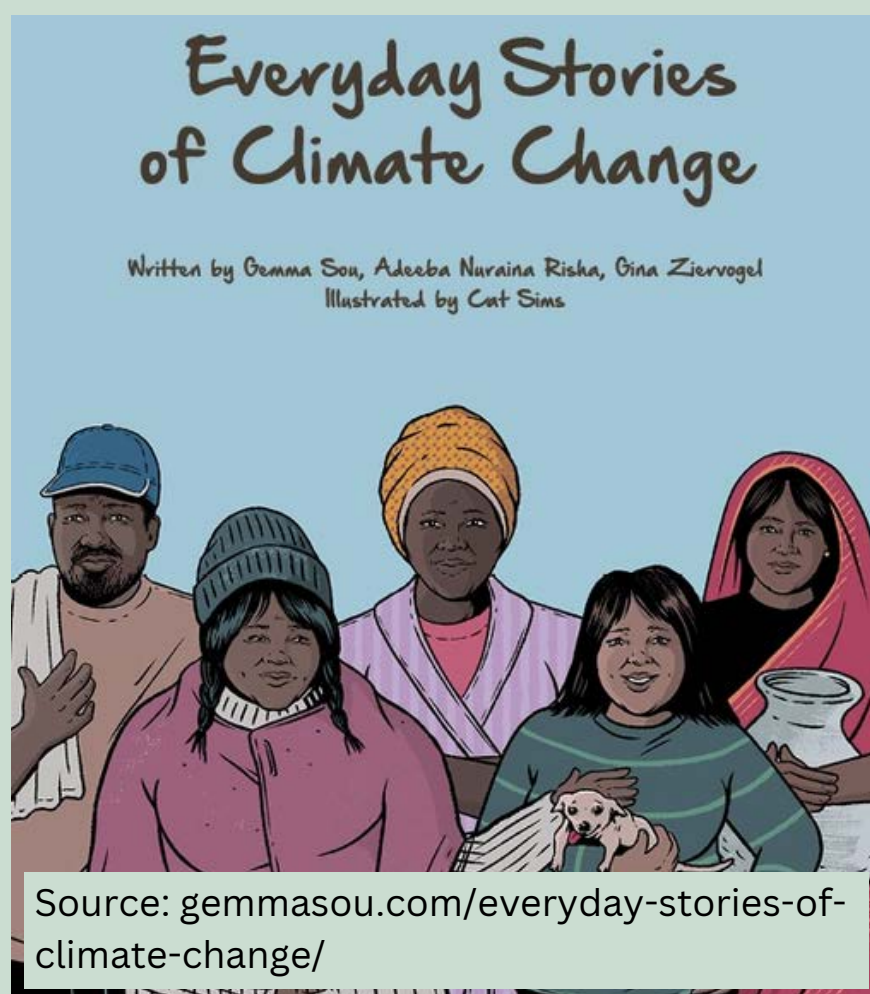
"How does climate change affect Pakistan?"

Student G

"How is Pakistan adapting to climate change?"

Methods

Using Sou et al.'s (2022) graphic novel, 'Everyday Stories of Climate Change', and an enquiry-based approach (Roberts, 2013), I taught three lessons to Year 9 students.



Enquiry Question: Why is climate change an issue of inequality?

- Led the class through collective reading, emphasising country studies.
- Students applied learning to questions, formulating connections and conclusions (Roberts, 2014).
- Employing questioning, I tapped into students' substantive and disciplinary knowledge, recording response-frequency and content to gauge curiosity.