Development of geoscience education books with schoolchildren from low STEM engagement areas

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How?

Energy & Environment Book

Academic advisors

Co-creators

Fact checkers
The Great Debate
Evaluation goal: assess effectiveness of books

Qualitative Focus Groups
Parents
n = 2

In-depth interview
Teachers
n = 3

Quantitative Purposive sample
n = 120
Qualitative – responses - parents

- it’s all about points end of high school exam

- unable to provide guidance on STEM related careers
Qualitative – responses - teachers

fixed as opposed to growth mind-set

career aspirations based on careers of their parents
“I asked them at the start of the year what they want to be when they grow up, and it was pop-star, hairdresser, working in a beauty salon, one vet and one artist...I did it again at the end of the year and a good few of them said scientist, so they they’ve taken that on, they see themselves as the science class of the school, and most of them plan to do science in secondary”
Overall effectiveness: Quantitative

Almost all (98%) felt the books enhanced children's interest in science.

Difference between middle and working class responses to the complexity of the books.

Energy and Resources ranked the second most popular book in the series.
Engagement with research community
Enhancing engagement with STEM

Effectiveness of books located at the level of exposure and engagement

Exposure – through various activities, participation in projects, visits from experts in the field etc.

Engagement – making learning fun through active learning techniques

Confidence and competence - through practical and independent application of knowledge & recognition from others

Motivation to pursue STEM career
THANK YOU

Project Team
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