IAF SPACE EDUCATION AND OUTREACH SYMPOSIUM (E1)
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ILLUMINATING SPACE SCIENCE ENGAGEMENT IN LOW SCIENCE CAPITAL COMMUNITIES: BLACKPOOL, LANCASHIRE, UK

Abstract

Located on the Irish Sea coast of North West England, the Victorian seaside resort of Blackpool holds a unique place in the affections of British holiday-makers. The town's iconic landmarks of the Blackpool Tower and Pleasure Beach as well as the three piers bound a two-mile stretch of promenade. After a busy summer season, early autumn in the resort focuses on the Blackpool Illuminations, a light show along this seafront that has operated annually since 1879 and currently attracts four million visitors.

However, for those living in large parts of Blackpool, life paints a very different picture. Official UK government statistics reveal Blackpool was ranked England's fourth most deprived area over an extensive range of metrics. The percentage of pupils achieving good school exit examination grades is declining annually and less than 12% of young people will enter university. Blackpool is the prime example of a region with exceptionally "low science capital" - the concept of science capital being a science-related form of cultural and social capital employed as a theoretical lens for explaining differential patterns of aspiration and educational participation in science amongst young people (Archer et al, 2015, J Res Sci Teach, 52: 922).

This presentation will outline the ambitious three-year longitudinal public engagement programme of interventions with a specific cohort of young people in Blackpool as we journey with them from their last year in primary school (10/11 years old) through to their early years in secondary education (12/13). Funded by the UK's Science and Technology Facilities Council Leadership Fellow in PE programme, this work consists of school visits and community events plus trips to specialized facilities. This includes the UCLan/Ri Young Scientist Centre (a vibrant laboratory space dedicated to offering interactive and inspirational STEM workshops) and Alston Observatory (a purpose-built teaching and public outreach facility that comprises a group of both modern and historical telescope and a planetarium).

The overall aims are to (i) improve the experience of space science for this targeted cohort; (ii) inspire them through activities that increase their exposure to, develop their knowledge of and enhance their confidence in engaging with STEM; plus (iii) raise their aspirations of being scientists themselves by meeting real-life space scientists. The approach to relationship building with the cohort of young people as well as to evaluation of the potential improvement of their science capital metrics will be discussed and compared to UK and international benchmarks.