School students' attitudes and aspirations in science
Professor Justin Dillon

King's College London, United Kingdom

Low participation rates in science are a matter of international concern and existing evidence suggests that children's science aspirations are largely formed within the critical 10-14 age period. This presentation explores how families can shape young children's science aspirations, using Bourdieu's concept of *habitus* to map family resources and practices. This paper draws on two research projects: ASPIRES and Interests and Recruitment in Science (IRIS).

Findings from the ASPIRES project draw on qualitative data from 160 semi-structured interviews (92 school children age 10 and 78 parents), collected as part of an ongoing 5-year longitudinal study in the UK. Findings are contextualised with reference to a survey of over 9,000 elementary school children in England (age 10) collected as part of the wider study. A typology of eight key family 'habitus' is developed, ranging from families in which science is strongly embedded, through to ambivalent contexts and those in which science is weakly or peripherally embedded. It discusses the implications of each for promoting, or deterring, children's science aspirations. The IRIS project was aimed to develop knowledge and recommendations informed by evidence on how young people, and women in particular, may be attracted to, and retained in, STEM higher education. Specifically, the project addresses the following questions: 1. What are the priorities, values and experiences on which young people base their educational choice? 2. What are the success factors for interventions aimed at recruiting more young people (women in particular) to higher STEM education? and 3. How do STEM students who drop out/opt out before graduation, explain their choice? The main instrument is a questionnaire (IRIS Q) that was completed by almost 6,000 first-year STEM students in the five IRIS consortium countries in 2010. A range of smaller-scale, qualitative and quantitative modules contributed to the overall results of IRIS during 2011.

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