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A Review of Opening Doors Conference Institute of Physics: London, UK

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CONFERENCE DETAILS

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REVIEW

For the past decade the Institute of Physics – the UK’s professional society for physicists, has undertaken a range of projects to investigate the reasons for the low participation by girls in physics at secondary (11-18 years) schools in the UK. The projects have ranged from a review of the research literature on the topic (Murphy and Whitelegg, 2006), good practice guides for teachers (Engaging with Girls, 2010), professional development workshops, a review and analysis of national statistics of participation (It’s Different for Girls, 2012) and Closing Doors (2014). The 2012 report highlighted the startling statistic that half the mixed-sex, state-funded schools in England did not send any girls to do physics A-level and that girls attending independent, single-sex schools were four-times more likely to choose to study physics than those attending state-funded schools, which are the majority of schools in the UK. (The publications referred to above can be downloaded from the [IOP’s gender balance web pages](#).)

The [final report](#) of the latest contributor to the IOP’s initiatives in this area, the Opening Doors project, was launched at a recent conference held in London on 20th October, 2015. This conference reported on the results of the year-long project that involved working with 10 state-funded, secondary schools in the south and south-east of England. The aim of the project was to examine the culture in these schools from a gender perspective; school culture having been identified by the Closing Doors project (2014) as a key factor influencing students’ subject choice.

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The schools that were invited to participate in the project had lower than average participation statistics for the most gendered school subjects (English, maths, biology, physics, economics and psychology) suggesting that they were not improving the already poor gender bias of progression into these subjects. Each of these 10 schools was visited by a small panel consisting of two to three IOP staff, an external gender expert and a peer teacher from another school involved in the project. During the visits the panel met with senior management, department heads, subject teachers and staff with special responsibilities (e.g. for careers' advice, for optional subject selection, for diversity policy etc.). The emphasis in these visits was purely advisory and the visits were not intended to assess schools, but instead to stimulate a discussion about gendered culture within the school and offer suggestions for good practice to overcome barriers to counter gender stereotyping in each school.

Following an introduction to the project by Professor Peter Main, former Director of Education at the Institute, Professor Louise Archer from King's College, University of London introduced a sociological perspective in gender and science participation and outlined some of her research for the [ASPIRES](#) project. Dr Stephanie Burnett Heyes, a cognitive neuroscientist from the University of Birmingham, described recent research on gendered similarities and differences in the brain and discussed the very strong influence of environmental factors that lead to changes in the brain and brain development, contrasting that with genetic factors. Dr Gijsbert Stoet, from the Psychology department at the University of Glasgow presented some theories based on evolutionary psychology and socio-cultural approaches to account for the gender divide in subject participation and called for a broader-based approach to subject choice for all students. The day concluded with a panel discussion and summary led by Dame Barbara Stocking, University of Cambridge.

The conference was attended by 160 people from 116 organisations, including those responsible for policy and for practice in educating young people at school and university level. The IOP hope that this is the first of a series of annual events to consider the gendering of young people's school experience across a range of subject areas.

REFERENCES

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