

The Improving Gender Balance Scotland (IGBS) project aims to establish school interventions to effect long-term cultural change with a particular focus on challenging gender stereotypes in science, technology, engineering and mathematics (STEM) subject areas.

The broad aim is to tackle the persistent under-representation of certain groups in these subject areas. For example, in 2016, only 27% of entrants to Higher physics were female, although across all subjects 55% of entrants were female.1

IGBS provides schools with sustainable ways to improve pathways into STEM-related careers and Modern Apprenticeships, which should result in more young people taking non-traditional career choices. The project works with school clusters,² from Early Years to S6, and with all members of the school community including students, teaching staff,

parents and the senior leadership team.

IGBS project school clusters

A similar project in England ran from 2014–16 and was successful in increasing the uptake of physics A-level by female students.3 This work highlighted the need for a school-wide approach to change whole-school systems and processes, covering boys and girls and all subjects.

IGBS is unique in working on these issues with Primary Schools and Early Learning and Childcare Centres (ELCCs) as well as Secondary Schools. The issues associated with gender stereotyping start at a very early age, and efforts to address them must start as early as possible.

Gender stereotypes shape self-perception, affect wellbeing and attitudes to relationships as well as influencing participation in the world of work. In a school environment they can affect a young person's classroom experience, academic performance and subject choice. Stereotypes can have a negative impact on both boys and girls.

IGBS understands that work to tackle any gender imbalance in a school must be regarded as a whole school issue, and all strands of gender imbalance must be tackled together.

The pilot project is running for three years, is funded by Skills Development Scotland (SDS) and managed by the IOP in partnership with Education Scotland. By collaborating with Education Scotland it has been possible to align the IGBS project with their work on STEM. The current funding runs until March 2018.

The focus of the project is helping practitioners and senior managers within schools and ELCCs understand gender stereotyping, and develop approaches to tackle them. The interventions are evidence based and are carried out by the schools, facilitated and supported by the IGBS Project Officers.

An external interim evaluation reported some key successes and changes in the schools participating in the project:

- The IGBS project embeds itself within the schools and provides ongoing support. This is critical to its success as changing gender biases requires sustained, long-term action.
- Schools are often concerned about overcrowding of the curriculum and can be reluctant to take on additional work.
 However, participating schools generally felt that IGBS had taken an appropriate approach – by focusing on how gender can be built in as a cross-cutting theme rather than requiring additional activities.

At the time of the evaluation, IGBS had worked with multiple schools in each of the six cluster areas (with a minimum of one secondary and one primary in each area).

By the end of June 2016, the project had delivered:

1,110 hours of teacher support/CPD

4,367
hours of pupil
engagement and
support

1,025
hours of stakeholder engagement activities

The staff and teachers in schools involved in year 1 of the project made a number of observations, including:

- Greater awareness amongst teachers and senior managers of unconscious bias, including gender bias – and how it manifests itself within their activities and what steps need to be taken to promote gender balance.
- Greater awareness of gender issues among learners with this feeding into students talking about gender issues more often. For example, a number of teachers highlighted that students are more likely to confront bias, stereotyping or throwaway remarks than in the past.

2017-18 project aims:

- In the third year of the project, the main goal is to evaluate the approach and disseminate best practice.
- We are exploring ways to roll out IGBS to other schools and authorities across Scotland. To help with this, IGBS has:
 - Developed a range of resources that can be used by schools (such as action guides, lesson plans, and selfassessment tools).
 - Presented at a range of educational conferences and events attended by teachers and school senior management – helping raise awareness and interest in using these resources.
 - Planned local authority based continuing professional development events to train the trainer to be delivered by IGBS project officers.
 - SDS Careers information, advice and guidance staff are also promoting the resources across their networks and working to share good practice arising from IGBS.
- In collaboration with SDS, the training model will be packaged into a suitable format to be used locally and nationally.

The programme so far has shown that in addition to the above resources, face-to-face contact and the availability of longer-term mentoring and support for schools and early learning and childcare centres from experienced IGBS staff will be invaluable for long-term impact.

For further reading and resources visit:

http://bit.ly/HubIGBSResources







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 $^{^1\,\}text{IOP}\,\text{data}\,\text{centre.}\,\text{http://www.iop.org/policy/statistics/scottish-highers/gender/page_68074.html}$

² The five areas are National STEM Improvement Framework clusters. There are two in Fife and one each in Glasgow, North Ayrshire and South Ayrshire. The final cluster is in West Lothian which was selected as other activity (eg, the Regional Gender Pipeline project) is taking place in this area.

³ Improving Gender Balance, IOP: http://www.iop.org/publications/iop/2017/file_69171.pdf