Gender inclusive teaching

An experiment conducted at the CERN International High School Teacher Programme. First lessons learnt.

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The CERN International High School Teacher Programme

• 3 weeks, every summer
• 60 teachers from all over the world
• Goal: improve and update teachers’ knowledge of particle physics, associated technologies and subjects
Why a work group on gender inclusive teaching?

Reduce the gender gap in the field by contributing to change at high school level

- Raise awareness on gender equality in STEM / in physics
- Learn from teachers’ experiences and work on solutions together
- Spread CERN’s vision through teachers
Teachers’ expectations

Develop new projects and teaching material that engage ALL my students

Make a change in my country

Engage girls who excel, but who not consider a career in physics

Reflect on my teaching method and gain competencies
How?

**Discussions** – Teachers share experiences and observations from their classroom

**Sharing initiatives and numbers** – Initiatives in home countries and at CERN

**Input from experts and research** – e.g. Isabelle Collet (UNIGE) and latest research on the topic

**Introduction of concepts** – Unconscious bias / stereotypes Application to the classroom

**Interviews with female scientists at CERN**
What the teachers took home

- Open activities – science fair to teach the scientific method (Antwerp)
- “Buddy system” for higher grades (UK)
- Introduce reflection time and open enquiry activities (UK)
“It really made me realise some of my own unconscious behaviours, to which I will definitely pay more attention to in the future.

One of the things I will take home is, that an environment of collaboration and open discussion, rather than competition, can do wonders and can engage not only more girls, but also my more introverted male students.”

(Itumeleng Molefi, Physics Teacher in South Africa)

Summary of the findings:
http://diversity.web.cern.ch/2016/08/gender-inclusive-teaching-2016-high-school-teacher-programme
What’s next

• 3rd run of the work group in progress...
  o Opening the perspective – inform and work on global initiatives
  o Work on concrete materials, initiatives and projects
  o Create a network to make the effort sustainable

• Interest from various organizations to replicate the idea