Developing policies that support gender-responsive STEM education at the school level

Schools play a critically important role in shaping girls' and boys' experiences of STEM education. Many countries see a marked decline in the number of girls taking advanced-level STEM subjects in the upper secondary grades, a situation which urgently needs to be addressed. Instruction in mathematics and science subjects during the middle school years often contributes to students' selection of STEM disciplines in the upper secondary grades. Then, in turn, differences in the teaching of mathematics and sciences at the secondary level can have a strong impact on girls' and boys' achievement in these subjects, which impacts their higher education subject choices (OECD, 2015a). School-based efforts to expand girls' choices include curriculum and pedagogy that promote gender equality, and the effects of teachers' professional development. Girls and boys can perform equally well in mathematics and science if they are given equal opportunities to develop the self-confidence and the skills to realize their potential.

Depending on a country's form of education governance, schools may enjoy different degrees of autonomy in making policies on STEM and other curriculum-related issues. Even when national, regional, state or county governments develop the policies, schools may have to adapt these policies for day-to-day school operations. It is therefore important that schools are empowered to be able to develop policies that support gender- responsive STEM education and meet the needs of all their

4 Focus of the activity

This activity and the suggested tasks will help participants to explore the process of developing policies that support gender-responsive STEM education at the school level.

TASK 1: Individual reflection

Read the documents 'Gender Inequalities in education in South Africa' (Rarieya, Sanger, and Moolman, 2014) and 'Girls into Science: A Training Module' from page 114 to 120 (UNESCO, 2007).

TASK 2: Work in small groups

a. Read and discuss the 'Analysis matrix for gender equality in schools' below.

Table 1.1: Analysis Matrix for Gender Equality in Schools

UNIT OF ANALYSIS	INDICATORS	WHAT ARE THE GENDER INEQUALITIES IN YOUR SCHOOL?
	• Balance of representation of women and men on the school board • Balance of representation of female and male teachers and other school staff • Balance in the assignment of duties and responsibilities to women and men for issues relating to STEM education • Differences in women and men's access to professional development in STEM education (sponsored training, scholarship, exchange or exposure visits) and upward mobility (promotion, salary raises, recognition) • Distance of schools from villages, and the resulting impact on females and males (staff and students); for instance, more impact on girls'/ women's access than boys'/men's due to safety concerns • Educational infrastructure that is equally and safely accessible for female and male students and school staff (playgrounds, labs, latrines, school rehabilitation, etc.) • Differences between women's and men's access to leadership positions in education institutions for teachers and other staff • Institutional policies, or their absence, that deter/address sexual harassment, bullying and other forms of school-related gender-based violence (SRGBV) • Equality between women and men in decision making within the school (for instance, are men and women equally represented, is their presence equally valued, are their voices/opinions equally listened to, etc.) • Differences between girls' and boys' school retention rate, including differences in girls' and boys' grade and age of dropping-out	

UNIT OF ANALYSIS	INDICATORS	WHAT ARE THE GENDER INEQUALITIES IN YOUR SCHOOL?
	• Any gendered social norms and traditions celebrated or tolerated in the school that negatively affect girls and/or boys (including rituals) • Polices supporting adolescent girls' and boys' needs (for example, access to sanitary towels for girls, and clean and safe toilets for all children; comprehensive sexuality education) • Policies addressing gender-based violence and supporting students who have experienced it in any form • Household demands and domestic burdens placed on girls and boys that impact negatively on their schooling • Differences between women's and men's access to school spaces • Distance to school and effect on mobility of girls and boys • Permissible interactions between girls and boys • Differences between women's and men's access to school-related activities • Differences between mothers' and fathers' roles and interactions with school (for example, which parent comes to school events, or participates in parent-teacher associations).	
GOVERNANCE	• Robust and enforced school policies and Codes of Conduct for teachers and other school staff on school-related gender-based violence (for example, bullying, sexual violence) • Existence of any school rules and regulations that discriminate against either women or men • Differences between girls' and boys' opportunities to become student leaders, along with girls' and boys' actual representation as student leaders • Extent to which girls and boys are consulted on general school governance • Policies specifically promoting gender equality	

b.	What policies would you propose at the school level to address gender inequalities and promote gender equality?

TASK 3: Plenary discussion

a. Share your proposed policies in the plenary.

b. Discuss the following questions: Are there similarities across groups? What are the possible explanations for such similarities?

Product:

List of proposed policies to address gender inequalities and to promote gender equality at the school level