

STEM is redefining diversity and inclusion

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Outline

1. *OWSD*
2. *What is STEM all about?*
3. *Diversity and inclusion in STEM*
4. *Factors affecting women's inclusiveness in STEM*
5. *Suggested measures for ensuring women's inclusiveness in STEM*



Innovate



**What is
OWSD?**

**Organization for Women in Science
for the Developing World**

OWSD is **the first international forum** to unite eminent women scientists from the **developing and developed worlds** with the objective of strengthening their role in the development process and promoting their representation in **scientific and technological leadership**.

OWSD was founded in **1987**.

OWSD **provides** research training, career development and networking opportunities for women scientists throughout the developing world at different stages in their careers.



Together we can!

2. What is STEM all about?

Definition of STEM

□ STEM has been defined as:

- Knowledge, attitudes, skills [and values] to identify questions and problems in life
- The four strands of STEM



Benefits of STEM

- Professional development of workers
- Creates critical thinkers
- Shape our material, intellectual, and cultural environments
- Growth and stability of the national economy
- STEM job grows faster than the average of all jobs
- STEM education alleviate unemployment problem



STEM career growth



STEM occupation and its increasing relevance

- Now grow at 17%, and non-STEM occupations at 9.8%
- Earnings potential of 60% more than non-STEM careers
- Projected to grow 8.8% higher than non-STEM jobs



Diversity and inclusion in STEM

Importance of Diversity and Inclusion in STEM

- Diversity is the existence of variety within a group
- Diverse team \neq homogenous team



Barriers to Diversity and Inclusion in STEM

- Institutional policies
- Workplace climate
- Under-represented categories
- Differential compensation
- Gaps or lapses in funding





Barriers to Diversity and Inclusion in STEM cont'd



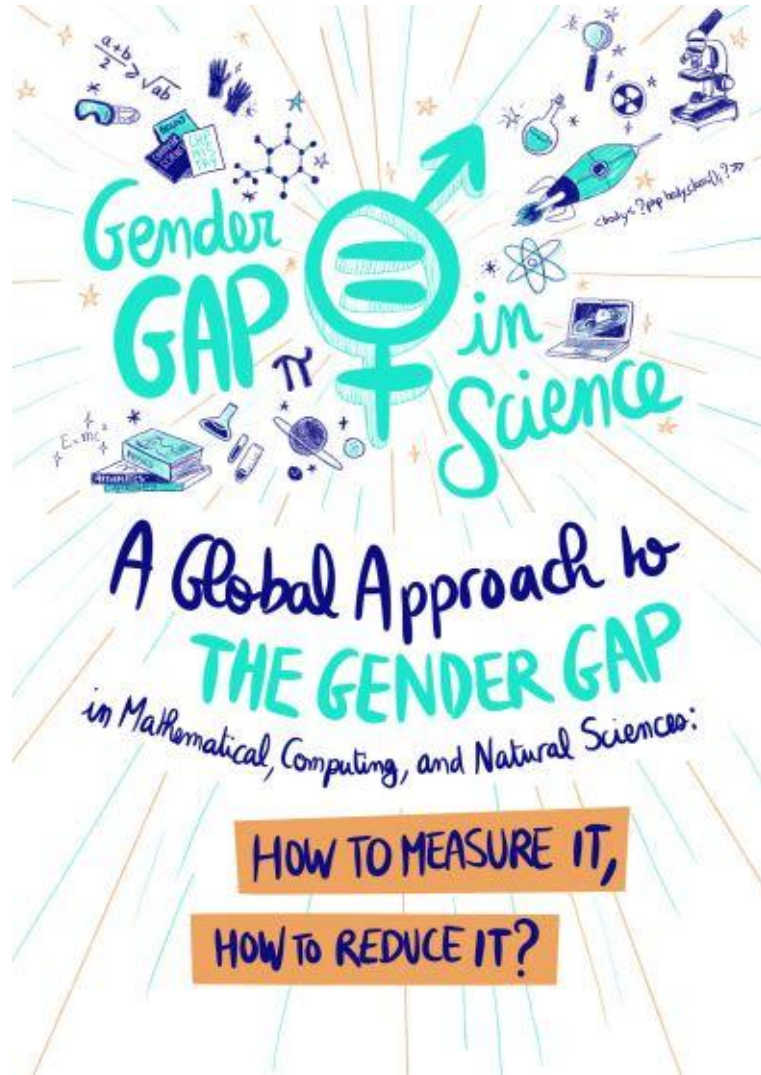
- Workplace interactions
- Uneasy race and ethnicity encounter
- Preconceived notions about women and underrepresented groups
- Lack of meritocracy at senior levels



Re-inventing Diversity and inclusion in STEM

- Set recruitment and retention for STEM workforce
- Create authority for scholars to be hired
- Provide leadership training and skills development
- Addresses barriers impacting groups underrepresented in STEM

Re-inventing Diversity and inclusion in STEM cont'd



- Training managers on implicit bias
- Diversify the STEM workforce at all levels

4. *Factors affecting women's inclusiveness in STEM*

- Classified under the nature versus nurture debate.

Nature debate

1. Assumption 1: Girls' brains develop differently from boys', and the biological differences explain the gender gap in STEM

- This is inconclusive



4. *Factors affecting women's inclusiveness in STEM*

Nurture debate

- Negative stereotyping

2. ***Assumption 2:*** Negative stereotypes about the ability of girls to excel in STEM can substantially lower girls' test performance and their aspirations for science and engineering careers over time

- Social and environmental factors contribute to the underrepresentation of women in STEM



4. Factors affecting women's inclusiveness in STEM

- Girls' self-assessment of their ability to succeed



Challenges facing women in STEM career

- Limited scholarship opportunities
- Lack of family support
- Difficulty in finding work-life balance
- Inadequate institutional capacity to support STEM courses
- Lack of mentors (women pursuing STEM)
- Discrimination against women in decision-making positions
- Patriarchal perception of certain professions
- Sexual harassment



5. Suggested measures for ensuring women's inclusiveness in STEM

- Develop deliberate policy options that financially support women
- Enabling working environment
- Deliberate efforts to develop a pool of mentors and encourage them to mentor young girls
- Policies to ensure gender balance –
- Laws to support the policy of representation
- Opportunity to support women after maternity break to fit back easily
- Flexibility to help women set up families early in life



5. Suggested measures for ensuring women's inclusiveness in STEM

- Personal level strategies to work and family
- Awareness of equity perspectives
- Clear communication for sexual harassment
- Commitment to the workplace goals of diversity, equity, and inclusion



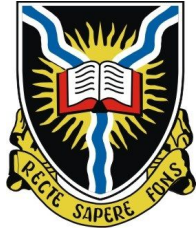
Suggested measures for ensuring women's inclusiveness in STEM

- Develop or expand work/life balance efforts
- Incentivize organizational reform
- Planned leadership addressed barriers
- Self-motivation



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מכון ויצמן למדע

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REPUBLIC OF SOUTH AFRICA



I'm a woman in science

- Thank you
- Merci beaucoup
- Ese
- Asante sana
- Danke
- Obrigada

Don't take yourself too seriously (all the time)

