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IDRC GRANT / SUBVENTION DU CRDI : - BRIDGING THE GENDER EQUALITY GAP IN SCIENCE AT THE WOMEN'S UNIVERSITY IN AFRICA



Canada¹³¹

Bridging the Gender Gap in Science at Women's University in Africa (WUA)

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Bridging the Gender Gap in Science at Women's University in Africa (WUA)

Background

- Three year, IDRC funded project (2020-2022);
- Important role of science and technology and gender equality for development as espoused in the SDGs.
- In Zimbabwe, the following key frameworks acknowledge the pivotal role of science and technology and gender equality
 - Vision 2030
 - National Development Strategy (NDS 1) acknowledges the gender gap in STEM disciplines commits to address it through inclusive and equitable access to education.
 - Ministry of Higher and Tertiary Education's Doctrine 5.0, a road map describing the important role of universities in the country's industrialization agenda

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Background

- Inclusive Science initiatives are recognized as fundamental for Zimbabwe's industrialization agenda.
- Gender gaps still persist in Science
- Women continue to remain underrepresented among Science graduates in Zimbabwe with female students at 19% compared to 39% of male students (World Economic Forum, 2018)
- A number of factors explain this, including;
 - deeply entrenched patriarchal and cultural norms and practices that tend to undermine women's agency;
 - negative stereotypes,
 - lack of role models,
 - lowering girls' performance, aspirations vis-à-vis science and technology,
 - covert discrimination, implicit biases and career preferences (McCullough, 2013).

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Background

- To address these barriers, GoZ introduced affirmative action and scholarships for females
- These initiatives have not registered significant traction towards the desired goal which saw the birth of WUA in 2002
- WUA has a specific mandate to address gender disparities in education.
- It's mantra is, *'addressing gender disparity and fostering equity in university education'*.
- Since its inception, no study had been conducted to interrogate its experiences in eliminating systemic barriers to participation of female students in Science fields.
- It is against this background that this study with the following objectives was undertaken:

Bridging the Gender Gap in Science at Women's University in Africa (WUA)

Objectives & methods

- Explore the nature of systemic barriers and their consequences on the engagement of women in science fields at WUA and by extension in Zimbabwe's institutions of higher education and inform measures of addressing the barriers.
- Interrogate and evaluate practical and policy interventions by WUA (in its administration and science faculties) to mitigate these barriers to inform future interventions.
- Proffer recommendations and share lessons and best practices with key stakeholders in Zimbabwe for the reduction of barriers preventing women's full participation in science fields in the country's higher education institutions.

Methods: Document review, questionnaire, focus groups, and Key informant interviews;

Barriers women's engagement in the sciences at WUA

Gender stereotyping: Some women and girls shun science programmes because of socialisation (100 of 5,158 students were in the sciences)

- Science disciplines were perceived to be tough and not feminine

Entry Requirements: Some girls at secondary school level drop science subjects, especially Mathematics - a prerequisite to enrol in most science programmes at the University level.

Masculine Environments: male dominated staff compliment of the science faculties and lack of female role models, lack of inclusive infrastructure and facilities

Barriers to the engagement of women in science fields at WUA

Pedagogy related factors: course content has not been revised to give attention to gender and to women in the form of *language, resources, representation of women, references and teaching styles*.

Limited Science programmes to choose from: Science programmes were considered expensive to introduce

Expenses: Science programmes were more expensive than others combined by lack of scholarship programmes

Infrastructure issues: Lack of transport to science campuses and on-campus accommodation

Practical and Policy Interventions By WUA to Mitigate the Barriers

- Increase women in leadership positions at WUA
- Introduce quota system for female students
- Implement foundation mathematics bridging course
- Offer flexible methods of study
- Provide daycare via an on-campus daycare centre
- Enable special enrollment requirements for female students
- Make compulsory a module on gender
- Decentralise university education to various provinces

Recommendations

- Develop a Gender Policy and Mainstreaming Strategy at WUA
- Provide capacity development for academic staff in gender sensitive pedagogy
- Increase gender awareness of staff members
- Continue to track gender disaggregated data in Science disciplines (e.g. at enrolment, and in terms of performance and retention in different disciplines)
- Develop an accompanied action plans to increase women's participation in underrepresented disciplines
- Promote mentorship programme for female Science students
- Establish a Women in Science Scholarship programme
- Promote women's security by providing transport and accommodation facilities
- Integrate gender policies across the primary, secondary and higher education systems in the country