



African Population and Health Research Center

BRIEF REPORT



PEDAGOGIES OF INCLUSION PROJECT: MIDLINE STAKEHOLDER ENGAGEMENT (AUG - SEP, 2024)

Introduction

This brief report highlights feedback from a virtual survey conducted in August and September 2024 with Science, Technology, Engineering, and Mathematics (STEM) stakeholders within Africa's higher education ecosystem. This midline stakeholder engagement is a build-up from the co-creation stakeholder engagements held between February and March 2024 with the support of the regional convening leads, namely: The Association of African Universities (AAU), the Association for the Development of Education in Africa (ADEA), the Inter-University Council of East Africa (IUCEA), and the Southern Africa Regional Universities Association (SARUA).

This high-level synthesis report provides insights from a project supported by the International Development Research Centre (IDRC) and implemented by the African Population and Health Research Center (APHRC) and the University of Johannesburg (UJ). The stakeholders' invaluable reflections and insights continue to inform and strengthen the research framework of this project.

Stakeholder Socio-Demographics

Survey participants represented 15 countries in sub-Saharan Africa (SSA), including East, Central, Southern, and West Africa. A total of 50 participants from diverse regional and institutional contexts took part in the survey. 58% of the survey respondents were female and 42% were male.

50 Participants in the Survey
58% were Female | 42% were Male

There was diverse academic representation in the survey, including institution, gender, expertise and rank.

The reflections continued to center around how pedagogical practices can address issues of social exclusion, particularly gendered exclusion, in STEM disciplines in higher education institutions in SSA.



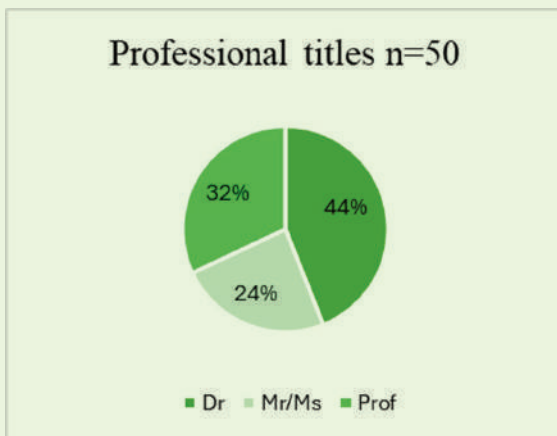
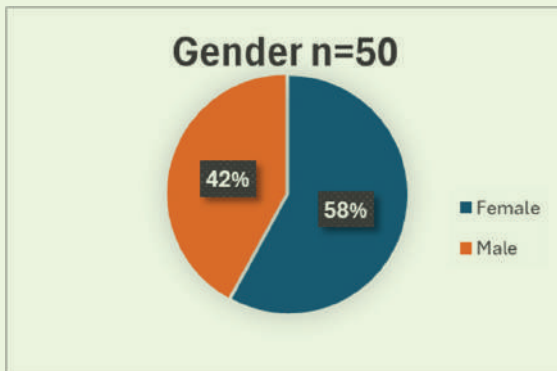
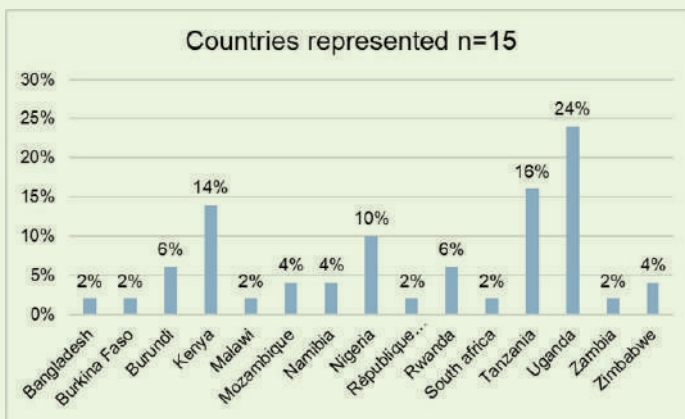


Figure 1: Participants' demographic characteristics

specialized centers for gender and STEM. These centers actively promote gender equity in STEM through research and training, mentorship, curriculum development, and industry collaborations.

On policies, most institutions have sexual harassment and gender-based violence policies, with a few having gender-related teaching and learning policies as well as policies related to other aspects of marginalization. Only 24% of the participants that participated recognized the presence of gender-response teaching policies in their STEM programs, highlighting the need for capacity strengthening of professional teaching and non-teaching staff and non-teaching staff. Several of the participants indicated the active collection of student success data by their institutions and disaggregating it by gender.

Awareness and Practice of Gender Sensitive Pedagogies

The stakeholders were aware of the necessity to meet the learning needs of their diverse learners, including recognizing their different abilities. Cultural integration in STEM teaching was acknowledged, especially its frequent occurrence with other factors such as learning needs or gender sensitivity, highlighting the necessity for cultural responsiveness in STEM courses and programs.

Stakeholders reaffirmed their commitment to fostering inclusive educational environments, emphasizing the importance of equal representation in teaching materials, equitable participation in classroom discussions, and the use of gender-neutral language.

Respondents indicated furthermore that educators are committed to providing constructive feedback to all students, reinforcing fairness in assessment and learning support. Teachers recognize the importance of addressing special needs students, even though fewer reported that they actively prioritize this aspect compared to broader gender inclusion. Similarly, while many educators track student performance and devise strategies to support struggling learners, fewer take the extra step of formalizing gender-sensitive classroom rules.



Key Thematic Areas

Institutional Systems and Practices

Institutions record students' enrolment data, including by gender, but data on targets for the enrolment of women is not collected. Low enrollment of women in STEM was associated with lack of gender-related teaching and learning policies. Although it is not known whether men are enrolled at a higher rate than women in STEM courses, some institutions prioritize females during enrolment. Participants indicated a lack of dedicated research centers focused on gender and STEM, a situation coupled with a lack of gender consciousness and persistent stereotypical beliefs regarding gender and STEM.

Whereas some HEIs have general academic research centers, these do not specifically address gender in STEM, and gender-related research is often handled under broader university departments or gender units with a wider mandate. With some having partial gender research units or directorates that indirectly support gender in STEM, others are planning to establish dedicated centers in the near future. However, a few institutions have established

Implication/Way Forward

Sensitization and awareness of faculty members on the short- and long-term academic and non-academic benefits of gender-responsive policies in the four regions is crucial. This could be achieved through webinars, communities of practice, and leveraging on regional and international STEM fairs.

The formulation of country-level or region-specific gender-responsive policies on the teaching and learning of STEM courses is desirable. Institutional leadership should prioritize and domesticate a culture of a bottom-up approach to consolidate the views of students, members of institutions (teaching and non-teaching), and relevant like-minded stakeholders in STEM to attain this goal.



Capacity strengthening of members of faculty to design and practice more inclusive gender-responsive policies that provide a 360-degree solution to learners with specific learning needs in STEM courses in higher education is crucial. This may be achieved through increasing research funds on STEM in institutions of higher learning and collaborations with like-minded partners.



Contributors

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