The Efficacy of Interactive Game-Based Learning in Imparting Sexual Health Education among Adolescents

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The problem related to unhealthy sexual behaviour among adolescents is severe in Africa, which can be attributed to the lack of knowledge on sexual and reproductive health. It is reported that adolescents in Africa often face social, cultural, economic, and structural barriers to access sexual and reproductive health information and services, making them vulnerable to poor health outcomes. Although school curricula cover topics on sexual and reproductive health, existing teaching approach is not as effective as expected. I will discuss the interventions we developed to impart sexual health education in secondary school with an interactive GBL and Gamification playable on the Web, Facebook, tablets, and smartphones. I purposively selected one school in Dar Es Salaam to participate in the study. Students were divided into groups of 40 each to attend one teaching-method. There were two experimental groups and one control group. I employed a mixed-methods approach in collecting both quantitative and qualitative. I compared the teaching-methods using a proposed-framework for the students' motivation, attitude, knowledge, and engagement (MAKE). No statistically significant difference in pre-test across three different teaching methods χ^2 (2, n = 120) = .390, p = .823. This suggests that both groups might be considered equal in terms of prior knowledge on sexual health matters. There were significant differences indicated in post-test score across groups χ^2 (2, n = 120) = 50.101, p = .000. The experiment groups showered higher average scores in the post-test: GBL (Mean = 79.94, SD = 11.169); Gamification (Mean = 78.78, SD = 9.580) than traditional teaching group (Mean = 51.93, SD 18.705). Overall, there are statistically significant differences (p = < .05) in all MAKE evaluation constructs between experiment and control groups. Thus, this study found that GBL and Gamification could have an impact on students learning sexual health education in Tanzanian context.