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Project-Based Learning: Teaching Students About SDGs

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Abstract

Very few to no students know what the Sustainable Development Goals (SDGs) are when entering higher education in South Africa. Therefore, a project-based learning (PBL) approach was followed to introduce students to SDGs during the practical component of the first-year Geography course. PBL is advantageous in developing 21st-century skills and students were divided into groups and had to complete three tasks related to the SDGs. The last task introduced students how to use generative AI in teaching and learning. A survey was used to determine the success and students' experience of PBL as a teaching strategy. A total of 195 students completed a questionnaire on PBL as a teaching methodology. Overall, students experienced PBL positive with 69.4% agreeing or strongly agreeing that they mastered knew knowledge through PBL, PBL motivated students to learn (71.6%) and should be integrated in other Geography modules (72.3% agreeing/ strongly agreeing). However, only 31.3% of students agreed or strongly agreed that they preferred PBL above the traditional lectured-based teaching strategy. The group component of PBL was positively experienced by students with 73.0% agreeing/strongly agreeing that they were exposed to the views of fellow students, and 81.9% had the opportunity to share their knowledge with fellow students. Before the project, only a fifth (20.8%) had moderately to high levels of confidence in using AI. The majority of students (90.6%) indicated that AI helped them understand the topic better, but only half of the class agreed that AI should be included in future teaching and learning.

Keywords: generative artificial intelligence; geography; group work; knowledge sharing; South Africa