Collaborative Integration of the Sustainable Development Goals into Architecture Design Studio in Higher Education

Iman Gawad & Zeina ElZein Helwan University Egypt

Higher education plays a key role in providing knowledge and fostering values for future generations. Integrating sustainable development concepts into students' curricula aims to promote innovative approaches toward global challenges. The study presents a collaborative design studio experience. The project included three components: the educational and research zone; the water and food security zone; and the waste management and renewable energy zone. During the study, a collaboration was carried out with two other courses: renewable architecture and urbanism, and energy modelling. The outcome showed how students integrated different forms of energy generation into the design project, in addition to calculations and simulations for the buildings' shading, daylight and thermal analysis. Results were diverse through the different designs and technologies for energy, food, water, and waste management. This approach sets the foundation for integrating UN SDGs into architectural education.